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School Social Workers' Perspectives on Working with Children with Autism Spetrum Disorders

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Recommended Citation
Eveslage, Marnie, "School Social Workers' Perspectives on Working with Children with Autism Spetrum Disorders" (2012). *Master of Social Work Clinical Research Papers*. Paper 22.
http://sophia.stkate.edu/msw_papers/22

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School Social Workers' Perspectives on Working with Children with Autism Spectrum Disorders

Submitted by Marnie L. Eveslage

April 30, 2012

MSW Clinical Research Paper

The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present their findings. This project is neither a Master's thesis nor a dissertation.

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Abstract

Autism spectrum disorders (ASD) are complex neurodevelopmental disorders that include deficits in social interaction, communication, and the presence of repetitive and restricted behaviors. The number of children with autism spectrum disorder has increased significantly over time, resulting in more children with autism in public schools. School social workers are members of the educational team who help support children and families and are often the first professional to whom families turn to in crisis. There is a paucity of literature and research studies on the perspectives' of social workers who work with this population. School social workers, who are members of the Minnesota School Social Workers Association (MSSWA), participated in a survey about their perspectives on working with children who have a diagnosis on the autism spectrum. They reported confidence in understanding the disorders and characteristics of autism spectrum disorders and indicated that they have received training that prepared them to work with this population. Their role in helping classmates, teachers, and parents understand the child's disability is one way their work is distinct from the work they do with other children. As demonstrated, school social workers who received training and education on autism spectrum disorders tend to be confident in recognizing the characteristics of autism spectrum disorders. Based on the dramatic increase in the number of children diagnosed with an autism spectrum disorder, there may be a need to provide education and training on autism spectrum disorders to the general population of social workers to ensure that they are confident in recognizing the characteristics and in referring children for screening.

Acknowledgements

Where do I begin in acknowledging everyone who has made this project possible? Words cannot explain how grateful I am for the amount of support and guidance I have received in so many different ways. I have grown tremendously as a person and social worker from this experience.

First, I would like to acknowledge where this research topic all began. My interest to increase my understanding of autism spectrum disorders was inspired by my nephew who has autism and a personal interest in working with individuals with disabilities. Cameron, you are an amazing young man who demonstrates that a child with a disability can do anything. Thank you for being you!

Second, I would like to thank my research committee. A special thank you to Carol for how dedicated you are to your students and the field of research. Thank you for believing in me that I could complete this project and for your guidance and words of wisdom. Becky and Rachel, thank you for your passion and insight about working with children with autism spectrum disorders and their families. It has been a wonderful opportunity to have you as my committee members.

Lastly, I have to thank my family and friends for their love and support. Thank you to my husband for encouraging me through this journey and putting up with all this craziness. You have been my rock every step of the way. A big hug to my mom for all the times you just listened and were present and to my siblings and friends for getting me out to enjoy myself. I am especially grateful that I have two of the most loving and kind in-laws. Thank you Jim and Jenni for welcoming us into your home and sharing my last year of grad school with me. You celebrated my accomplishments along the way and encouraged me when things got tough. I could not have done this without my family and friends. Love you all!

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Introduction

Autism spectrum disorders (ASD) are complex neurodevelopmental disorders that include deficits in social interaction, communication, and the presence of repetitive and restricted behaviors (American Psychiatric Association, 2000). Although autism was first defined by psychiatrist Leo Kanner more than 60 years ago, it has only been in the last fifteen years that public interest in this developmental disorder has increased (Volkmar, 2005; Johnson, Meyers, & Council on Children with Disabilities, 2007; CDC, 2009). Along with an increase in public interest, more research and knowledge about this topic has been published (Volkmar, Lord, Bailey, Schultz & Klin, 2004; Johnson et al., 2007) and more cases of autism have been identified and diagnosed earlier in life (Johnson et al., 2007; CDC, 2009).

The number of children with autism spectrum disorder has increased significantly over time. The Center for Disease Control (2009) reported an average increase of 57% from 2002 to 2006. In 2006, they estimated that 1 in 110 children in the United States had an autism spectrum disorder, with males being disproportionately affected at a rate of 1 in 70 (CDC, 2009). This increased by 23% since 2006 to 2008, with an estimated 1 in 88 children with an autism spectrum disorder (CDC, 2012). This rise in the number of children with autism spectrum disorders is consistent in Minnesota schools. According to Sievers (2009) the number of children with autism spectrum disorder has increased from 331 students in 1992 to 12, 707 in 2008.

The increasing prevalence of autism spectrum disorders is a public health and social concern (Dababnah et al., 2011; CDC, 2009). The impact of autism spectrum disorders affects families, schools, and society. Lifetime costs of caring for an individual with autism are estimated to be more than $1.6 million (Landrigan, Schechter, Lipton, Fahs, & Schwartz, 2002) and societal costs are estimated at $3.2 million (Ganz, 2007). Children with disabilities and their families face high levels of burden from increased economic and emotional stress (Parish, Rose,

Grinstein-Weiss, Richman, & Andrews, 2008). Families raising children with autism spectrum disorders are especially affected by financial burdens due to higher expenses, and more work related difficulties (Liptak, Stuart, & Auinger, 2006). According to Davis and Carter (2008) other factors that contribute to parental stress include depression and problems with coping related to children's behavior, social problems, and increased needs for specialized therapies.

As the prevalence of ASD increases, there are more children with autism presenting in public schools (Hess, Morrier, Heflin, & Ivey, 2007). Legislation in general education and special education mandates that all educators implement evidence-based educational programs (Individuals with Disabilities Education Improvement Act, 2004). Many interventions and treatments for children with an autism spectrum disorder do not have empirical evidence to substantiate their effectiveness in schools (Hess, Morrier, Heflin, & Ivey, 2007). This is rapidly changing within the last five years with the development of new programs that are evidence based practices for children with autism, such as the Strategies for Teaching based on Autism Research (STAR) program (B. Wood, personal communication, February 25, 2012).

School social workers are members of the educational team that help support children and families cope with difficulties. This includes children with disabilities, such as autism spectrum disorders. According to Epp (2008) social workers provide the connection between school staff and parents; they are trained in recognizing emotional and behavioral problems; they are often the professional a teacher or parent turns to (p.35). An additional role is being part of the assessment process for special education students (Minnesota School Social Workers Association, 2011). The assessment and treatment of autism spectrum disorders is often a complicated process and requires social workers to partner with families and other professions (VanBergeijk & Shtayermman, 2005). Therefore, it is vital for school social workers to

understand the disorders, the characteristics, and treatment of autism spectrum disorders to help increase the quality of life for children with an autism spectrum disorder.

This study explored school social workers' perspectives on working with children who have a diagnosis on the autism spectrum. Using a survey of school social workers, who are members of the Minnesota School Social Workers Association (MSSWA), this study examined school social workers' understanding of autism spectrum disorders, their role serving children on the spectrum and their families, and the interventions they use to serve this population. The information gathered from this study will help expand social workers' knowledge and help them prepare to work with this population. The results of this survey were compared to the literature and implications for social work practice and further research will be discussed.

Literature Review

The literature reviewed for this study included a wealth of information about this topic. Resources chosen for this study included information from a variety of sources, including the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision, journal articles, and research studies. In addition, two non peer reviewed resources written for a lay audience such as parents and professionals without a background in autism were included. These sources reference a developmental pediatrician (Coplan, 2010), with certification in general pediatrics and subspecialty in neurodevelopmental disabilities and developmental-behavioral pediatrics, and a mother with a child who has a diagnosis on the autism spectrum (Exkorn, 2005). For the purpose of this study, the following themes will be discussed in the literature review: defining the disorders that fall on the autism spectrum, characteristics of autism spectrum disorders, early identification of symptoms, treatment, and the social worker's role serving children with autism spectrum disorders.

Disorders that Fall on the Autism Spectrum

Autism is a term used to describe a group of developmental brain disorders (Simmons et al., 2006; Volkmar, Lord, Bailey, Schultz, Klin, 2004). It is a neurodevelopmental disorder categorized in the Diagnostic and Statistical Manual of Mental Disorders 4th edition, Text Revision (DSM-IV-TR) as a Pervasive Developmental Disorder (PDD). This category of disorders includes: autistic disorder, Asperger's Disorder, pervasive developmental disorder-not otherwise specified (PDD-NOS) Rett's syndrome, and childhood disintegrative disorder (DSM-IV-TR). The more current term for autism is autism spectrum disorder (Exkorn, 2005; Epp, 2008; CDC, 2009) which refers to three disorders in the DSM-IV-TR: autistic disorder, Asperger's disorder, and pervasive developmental disorder not-otherwise specified. Children

with any of these three disorders are said to be on the spectrum (Coplan, 2010 p. 10; CDC, 2009). Throughout this study, these three disorders will be referred to as autism spectrum disorders (for official DSM-IV-TR definitions, see Appendix A).

The precise causes of autism spectrum disorder has not been identified, although researchers believe there is a strong genetic and environmental influence (Dababnah et al., 2011; Johnson, Myers, & Council on Children with Disabilities, 2007). Finding the cause has been daunting because autism spectrum disorders involve multiple genes and demonstrate variation in phenotype (Johnson et al., 2007). Although the spectrum of disorders include similar features, it is important to clearly define the spectrum of disorders and their differences. A discussion of how the disorders fall on the spectrum will first be discussed. Following this discussion, each disorder will be addressed to identify its distinct feature and differences.

Autism Spectrum Disorder

The Center for Disease Control (2009) defines autism spectrum disorders (ASD) as a group of developmental disorders with symptoms of significant social, communication, and behavioral problems. The symptoms are generally present before the age of 3 years and may be accompanied by impairment in cognitive functioning, learning, attention, and sensory processing (American Psychiatric Association, 2000; CDC, 2009; Coplan, 2010). It is considered a spectrum of disorders because each individual is affected differently with symptoms that vary in intensity from mild to severe (Coplan, 2010 p. 10; Exkorn, 2005; CDC, 2009). Individuals with autism spectrum disorder share similar symptoms but there are differences in when the symptoms start, how severe they are, and the nature of the symptoms; no two children are alike (Coplan, 2010; Exkorn, 2005; Volkmar et al., 2004). A child on the severe end of the spectrum might not be able to speak and have cognitive impairment; a child on the mild end may be able to function in

a regular classroom and even reach the point where he or she no longer meets criteria for an autism spectrum disorder (Exkorn, 2005 p.7). Autistic disorder will be defined next to help understand where this disorder falls on the spectrum.

Autistic disorder. This disorder is often referred to as the hallmark of autism and is the disorder that most people think of when hearing the word autism (CDC, 2009; Volkmar & Pauls, 2003; Simmons et al., 2006; Exkorn, 2005). Individuals with autistic disorder usually have significant language delays, social and communication challenges, and unusual behaviors and interests (American Psychiatric Association, 2000; CDC, 2009; Volkmar & Pauls, 2003; Coplan, 2010). Individuals with this disorder can have intellectual disabilities, but this is not a requirement for diagnosis (CDC, 2009; American Psychiatric Association, 2000).

Many children with Autistic Disorder can appear to have little or no interest in making friends or establishing relationships with others and appear more interested in objects than people (American Psychiatric Association, 2000). It is a common misconception that children with autism spectrum disorders do not desire establishing friendships when many do, particularly children with Asperger's Disorder; they appear this way because they have difficulties sustaining friendships (B. Wood, personal communication, February 25, 2012). Their play can be noticeably different than other children as they do not engage in pretend play, are often seen playing alone, and use toys differently (line them up) than other children (Adams, Green, Gilchrist, & Cox, 2002; Simmons et al., 2006; Exkorn, 2005).

Asperger's disorder. This disorder is categorized in the DSM-IV-TR as a separate disorder from autistic disorder and was not added to the DSM-IV-TR until its 1994 revision (American Psychiatric Association, 2000). Asperger's Disorder is characterized by highly impaired social skills, difficulty relating to others, a lack of imaginative play, and a

preoccupation with a highly specific topic (American Psychiatric Association, 2000; Vanbergeijk & Shtayermman, 2005). It is often referred to as high functioning autism because an individual with this disorder shares behaviors and difficulties like someone with autistic disorder, but they tend to have average or above average intelligence and typical or advanced language skills (American Psychiatric Association, 2002; Simmons et al., 2006; Exkorn, 2005).

It is distinguished from Autistic Disorder because the severity of symptoms are milder, and there is an absence of language and cognitive delay (Simmons et al., 2006; American Psychiatric Association, 2000; CDC, 2009). Children with Asperger's develop typical communication skills in the first few years of life and present strong verbal skills that are not a component of diagnosis for a child with Autistic Disorder (American Psychiatric Association, 2000). A child with Asperger's Disorder might appear different from other children because they do not understand social rules and might lack empathy for others. They can appear socially awkward, but usually want to fit in and have social interaction, unlike some children with Autistic Disorder. (Simmons et al., 2006).

Asperger's is often not diagnosed until the child is in school because it is difficult to recognize at an early age (VanBergeijk & Shtayermman, 2005; Exkorn, 2005). According to the American Psychiatric Association (2000) early language and cognitive skills are within normal limits in the first 3 years of life and parents are not usually concerned about the child's development (p. 81). Children with Asperger's are often bright and there is no clear sign of impairment like the language delay that is seen in children with Autistic Disorder (VanBergeijk & Shtayermman, 2005; Exkorn, 2005).

Pervasive developmental disorder not-otherwise specified (PDD- NOS). The third disorder to define on the spectrum is pervasive developmental disorder not otherwise specified

(PDD-NOS). This disorder is sometimes referred to as atypical autism because children with this diagnosis show some but not all of the criteria for the other disorders (American Psychiatric Association, 2000). A child with PDD-NOS has severe impairment in either verbal or non verbal communication skills or displays unusual behaviors, interests, and activities; they do not meet criteria for a specific pervasive developmental disorder (American Psychiatric Association, 2000). For example, this would include a child who does not meet criteria for autistic disorder because of late age of onset or atypical symptoms (American Psychiatric Association, 2000).

Characteristics of Autism Spectrum Disorders

Many sources have agreed that individuals with a diagnosis of autism spectrum disorders are affected in different ways. The core characteristics include impairment in socialization and communication, and demonstration of repetitive and stereotypical behaviors (American Psychiatric Association, 2000; Johnson, Myers, & Council on Children with Disabilities, 2007; Simmons, 2006; Coplan, 2010; Levy, Mandell, & Schultz, 2009). Characteristics of abnormal sensory and motor processing are noted only by a few sources (Johnson et al., 2007; Coplan, 2010). The most frequently noted symptoms are addressed for a clear understanding of the characteristics. Impairments in social skills and communication will be explained first. Following this will be an explanation of repetitive and stereotypical behaviors and challenges with sensory processing.

Social skills deficits

Some children with autism spectrum disorders demonstrate difficulty socially relating with others and do not seek connectedness. They may be content being alone, ignore parents, and seldom make eye contact with others. They minimally attempt to receive attention from others through gestures or vocalizations. Children with autism spectrum may not seek to share

enjoyment and interests with others and have difficulty understanding social rules (Simmons, 2006; Johnson, Meyers, & Council on Children with Disabilities, 2007; Coplan, 2010; Levy et al., 2009).

A common difficulty for some children with autism spectrum disorders is developing peer relationships. They often have few or no friendships and have little interaction with others (Levy et al., 2009; Johnson et al., 2007). It is noted that when they do have friends, their relationship often evolves around the child with autism's own special interests (Johnson et al., 2007). One factor that contributes to limited friendships is that some children with autism spectrum disorders do not have the skills needed to socialize with peers their own age and language abilities (Coplan, 2010; Johnson et al., 2007). Social interactions tend to be difficult because these children are unable to interpret stimuli; instead they focus on parts of a conversation, make less use of context, and thus miss the big picture. In addition, children with autism spectrum disorders may demonstrate difficulty understanding the perspectives of others. This affects their ability to empathize, share, and comfort others (Johnson et al., 2007; Adams et al., 2002). Impairment in social skills is one characteristic that is challenging for a child with an autism spectrum disorder. In addition to difficulties with socialization, some children with an autism spectrum disorder have difficulties communicating with others.

Communication

Children with autism spectrum disorder demonstrate difficulty communicating with others for different reasons. There are some children with autism spectrum disorders who are affected by problems with language delay, repeating words or phrases (echolalia), and developing conversational skills (Coplan, 2010; Johnson et al. 2007). There are some infants and toddlers with autism spectrum disorders who do not acquire speech at all and others who develop

single words; some children who are verbal develop speech that is based on memorized material (Coplan, 2010; Johnson et al., 2007).

Some children with autism spectrum disorders will repeat words or phrases; this is called echolalia (Coplan, 2010; Johnson et al., 2007; Rydell & Mirenda, 1994). This includes immediate echolalia, as seen when a child immediately repeats what someone has said. Delayed echolalia is demonstrated when a child repeats what others have said to him or her in the past and scripting echolalia describes the recitation of lines from a favorite movie or book (Coplan, 2010; Rydell & Mirenda, 1994). As children get older, they may develop language but continue to struggle with understanding jokes, fibbing, sarcasm, or make-believe (Coplan, 2010; Rydell & Mirenda, 1994; Adams et al., 2002).

In addition to language delay, a child's ability to communicate may be affected by an odd production of speech, limited understanding and use of nonverbal communication skills such as gestures, facial expressions and tone of voice, and an inability to initiate or maintain conversations (MN Department of Education, 2011). When speech does develop, the pitch, intonation, rate, and rhythm or emphasis may be abnormal (American Psychiatric Association, 2000). For example, their speech may go from too soft to too loud; the rhythm may be mechanical; or their speech may have a singsong or robotic quality (Adams et al., 2002; Coplan, 2010). Grammatical structures are often immature and include language that is only meaningful to those familiar with the individual's communication (American Psychiatric Association, 2000). Other concerns for children with autism spectrum disorders include problems with behavioral difficulties. These atypical behaviors that are demonstrated by some children will be discussed.

Repetitive, restricted and stereotyped patterns of behavior, interests, or activities

Atypical behaviors of children with autism spectrum disorders can be demonstrated in a variety of ways. These include unusual mannerisms, attachments to objects, obsessions, compulsions, self-injurious behaviors, insistence on sameness, difficulty with transitions, and stereotypical behaviors (American Psychiatric Association, 2000; Johnson, Myers, & Council on Children and Disabilities, 2007; Coplan, 2010). Stereotypical behaviors of children with autism spectrum disorders are defined as physically repetitious behaviors or unusual body movements that include hand flapping, finger flicking, rocking, swaying, twirling, and toe walking, (American Psychiatric Association, 2000; Johnson et al., 2007; Coplan, 2010;).

Children with autism spectrum disorders may have restricted interests and be preoccupied with one narrow interest (American Psychiatric Association, 2000). This can be demonstrated in the play of a child with an autism spectrum disorder, which often has an unusual quality (Coplan, 2010; Johnson et al., 2007; Baker, 2000). For example, a child with an autism spectrum disorder tends to spend hours carefully arranging his or her toys rather than using them as they were intended and line up an exact number of play items in the same manner over and over again (Coplan, 2010; American Psychiatric Association, 2000; Baker, 2000). Examples of this include lining up cars instead of driving them and arranging crayons instead of coloring with them (Johnson et al., 2007).

Resources describe repetitious behavior in children with autism spectrum disorders, but many do not provide an interpretation for why these children behave in this way. Repetition of a task makes it familiar, comfortable and can create a sense of security, but the repetitious behavior in children with autism spectrum disorders can be excessive and extreme (Coplan, 2010; Baker, 2000).

Developmental pediatrician James Coplan addresses his observation for why children with autism spectrum disorders engage in repetitious behaviors (2010). He suggests that the repetition of behaviors can be symptomatic of neurologic impairment and fits the description of perseveration. In children with autism spectrum disorders, perseveration can be coupled with impulsivity and the child will go back and forth showing symptoms of both. He also suggests that, what looks like perseveration could be a coping strategy for children with autism spectrum disorders. They rely on routines as a way to compensate for their inability to understand the meaning of their day. The extreme engagement in repetitious behaviors, such as swaying or rocking, in some children with autism spectrum disorders could be a way to calm themselves (Coplan, 2010). Understanding why a child with autism spectrum disorder behaves in unusual ways can be helpful in understanding their behavior.

In addition to the common characteristics associated with autism spectrum disorders, a few sources discuss sensorimotor processing as a fourth characteristic. Challenges related to sensorimotor processing faced by some children will be discussed.

Sensorimotor processing

Developmental pediatrician James Coplan (2010) and a clinical report written for the American Academy of Pediatrics by Johnson and colleagues (2007) note that although problems with sensorimotor processing are prominent in children with autism spectrum disorders, there is no evidence that these symptoms are unique to children with autism spectrum disorders. According to Coplan (2010) impairment in sensorimotor processing can be seen in other disorders, such as learning disabilities and attention deficit disorder, unlike other characteristics that are seen almost exclusively in children with autism spectrum disorders. Because sensorimotor processing was set aside as a diagnostic feature, Johnson and colleagues have

called for more research to define the role of sensory processing in autism spectrum disorders (2007). From an educator's perspective, the executive function disorder that can be seen in children with autism spectrum disorders creates the need for services in sensorimotor processing (B. Wood, personal communication, February 25, 2012).

Some examples of difficulties with sensorimotor processing include distortions of traditional senses—hearing, vision, touch, smell and taste (Coplan, 2010; Johnson et al., 2007). For example, children with autism spectrum disorders respond to sound differently than others, by becoming agitated and covering their ears in response to noises such as the sound of a vacuum. Visually, they are frequently drawn to visual patterns, such as spinning objects and geometric patterns. When being touched they may enjoy tickling and roughhousing while being highly opposed to forms of light touch. They may engage in sensory behaviors such as rubbing or licking objects or people. Some children will smell objects as a way of exploring them and may be highly sensitive to certain smells. Their tolerance for pain may be dramatically increased or decreased and their reaction delayed, absent, or exaggerated. Sensory factors related to food, such as texture, color, and taste, may lead to highly restricted diets. In addition, children with autism spectrum disorders may be clumsy, and demonstrate poor coordination and difficulties with fine motor skills (Coplan, 2010 p.28; Johnson et al. 2007 p.1194).

The characteristics of autism spectrum disorders have been discussed to help understand the disorders that fall on the autism spectrum. In addition to these characteristics, there are early indicators that a child could be showing developmental delay.

Early Identification

Recognizing the early signs of an autism spectrum disorders is often a challenge for parents and professionals because of the range of characteristics found in children with autism

spectrum disorders (Johnson et al,. 2007). Early detection of these disorders are beneficial to intervening in order to reduce problem behaviors, improve academic achievement in school, and increase social skills (Dababnah et al., 2011 p. 265; Johnson et al. 2007 p.1194). Some research shows early intervention can have a profound impact on the quality of life for children and families on the autism spectrum (Dababnah et al., 2011).

Although social deficits occur earlier in children, they can be subtle and less often recognized by parents. Parents usually become concerned by speech delays between the ages of 15 and 18 months of age but may delay discussing their concerns with their child's physician (Johnson et al. 2007). There are five early indicators that a child could be showing developmental delay 1) not babbling by 12 months, 2) not gesturing (pointing, waving goodbye, etc.) by 12 months, 3) not speaking single words by 16 months, 4) not displaying two-word spontaneous phrases by 24 months, and 5) loss of language or social skills at any age (Filopek, 2010; Johnson et al. 2007; Dababnah et al. 2011). It is important to note that a child who shows some of these behaviors does not necessarily have an autism spectrum disorder (Exkorn, 2005). These are signs that can alert parents and professionals to the need for further testing. The common treatment interventions will be explained before addressing the role of a school social worker who works with children on the spectrum.

Treatment

The number of treatments proposed for children with autism have skyrocketed with the increase of identified cases of autism spectrum disorders (Volkmar, 2005), but at this time there is no treatment to ameliorate all symptoms of autism spectrum disorders available (Levy et al., 2009). A web-based survey conducted by Green and colleagues (2006) received information from 552 families who reported information about 111 different treatments. They found, on

average, families were using seven treatments at the time they answered the survey, with one parent using 47 treatments simultaneously. The findings of this survey identified speech therapy as the most common treatment (70%) followed by visual schedules (43%), sensory integration (38%), applied behavior analysis (36%) and social stories (36%). In addition, 52% of parents were using at least one medication to treat their child.

Despite the number of treatments available, it is still unknown which treatments or combinations of treatments will be most effective and for whom they will be effective (Rogers & Vismara, 2008). For most children, the main source of treatment is the family or educational system (O'Roak & State, 2008). Treatment often involves a comprehensive approach and includes combinations of specialized educational services, developmental therapies, behaviorally based treatments, and intensive parent training that is in the home, community or school setting (Rogers & Vismara, 2008; Volkmar & Pauls, 2003).

Interventions are targeted at core symptoms of socialization, communication, and behavior (Levy, Mandell, Schultz, 2009). Targeting core symptoms might be more effective when treatment is initiated in early childhood, making early screening and diagnosis important (Lord et al., 2005). Behavioral or developmental manifestations of core symptoms are most obvious, therefore are the main focus of treatment (Levy et al., 2009). According to Coplan (2010) different models of treatment have a role depending on a child's development. There are specialists who have a narrow area of expertise that targets symptoms such as an occupational therapist who focuses on sensory integration, a behavior analyst who focuses on shaping behavior, and a speech pathologist who focuses on language (Coplan, 2010). The main treatment methods found in the literature will be summarized and include Applied Behavior Analysis, educational interventions, pharmacological interventions, and school social work interventions.

Applied Behavior Analysis

Applied Behavior Analysis (ABA) is one treatment model that has been successful for children with autism (Coplan, 2010, Tarbox & Granpeesheh, 2011) and has been one of the most researched treatment programs (Levy et al., 2009; Volkmar et al., 2004). Treatments based on these principles represent a wide range of early intervention strategies and include highly structured programs run in one-on-one settings as well as behaviorally based programs that include children with typical development (Levy et al., 2009). According to Tarbox and Granpeesheh (2011) ABA programs are intense and require 30 hours per week of one-to-one therapy that can last for two or more years. The overall goal of an ABA program is to eliminate unwanted behaviors (self-injury) and promote desired behaviors, such as language and social behavior (Coplan, 2010; Tarbox & Granpeesheh, 2011).

The first types of behavioral treatment programs were very structured, intensive, one-on-one programs called discrete trial training (Levy e.t al., 2009). According to Tarbox and Granpeesheh (2011) discrete trial training was a teaching procedure that involved repeated practice of skills that gradually increased in difficulty and decreased in structure and was the most scientifically supported teaching procedure for children with autism. Although scientifically supported, these intensive programs were expensive, and children had difficulty generalizing the information from a very structured session to group and community settings (Levy et al., 2009). Because of these concerns, less structured more naturalistic behavioral programs were developed (Levy et al., 2009).

ABA programs are proficient at decreasing challenging behaviors and replacing them with more adaptive behaviors such as teaching a child to ask for what he wants. They place a heavy emphasis on generalizing and maintaining new skills by applying them in other settings

(home) and with others (parents). ABA programs require the involvement of parents who are taught the basics of ABA and how to apply these techniques at home. These programs operate on the assumption that every child with autism is capable of learning and deserves a chance at learning the most skills in a positive, fun environment (Tarbox & Granpeesheh, 2011).

Naturalistic Environment Training is based on the notion of teaching through a child's natural environment such as during play, getting dressed, or making a sandwich (Tarbox & Granpeesheh, 2011). Examples of NET include incidental teaching, pivotal response training, and milieu teaching (Tarbox & Granpeesheh, 2011; Koegel R., Koegel L, & McNeary, 2001; McGee, Morrier, & Daly, 1999). Each of these naturalistic trainings are based on four common principles: 1) teaching is done in the natural environment, 2) teaching interactions are initiated by the child, 3) prompting from the teacher is used when necessary and, 4) the natural consequences of the behavior are used for reinforcement (Tarbox & Granpeesheh, 2011). It is considered necessary to incorporate both naturalistic training and highly structured discrete trial training to ensure sufficient learning opportunities and effective generalization of skills (Tarbox & Granpeesheh, 2011; Levy et al, 2009).

Parent-mediated interventions have been shown to be an important aspect of intervention (Levy et al., 2009). When parents are trained in highly structured behavioral methods improvement in generalization and maintenance of behavior change in children with autism spectrum disorders has been demonstrated (Ingersoll, 2007). When behavioral approaches began to apply naturalistic changes, these strategies were taught to parents who found they were easier to use in the home, needed less hours of training, increased leisure and teaching time, and improved their satisfaction and enjoyment of the treatment. Parents are now thought to be

important collaborators at all stages from assessment through to goal development and treatment delivery (Levy et al., 2009).

Educational Interventions

Children with an autism spectrum disorder have opportunities to learn through a variety of settings. The Individuals with Disabilities Education Act (IDEA) ensures that all children with disabilities receive free, appropriate public education in the least restrictive environment, tailored to each child's individual needs. This law guarantees for all children, regardless of their abilities, the right to obtain educational benefits from their educational setting. A child with an autism spectrum disorder attends school in one of the following ways: in a regular educational environment with support services, in a special education classroom with or without mainstreaming within the school, or in a school for children with special needs (Creedon et al., 2006; Levy et al., 2009). The setting chosen depends on the needs of the individual student (Creedon et al., 2006).

An Individualized Education Program (IEP) must be developed for any student receiving special education services (Wilczynski, Menousek, Hunter, & Mudgal, 2007). An IEP team helps determine what type of learning environment would be best for the child. A collaborative team consisting of the classroom teacher, social worker, other professionals who work with the child, administrators, and the child's parents meet to set educational goals, objectives, accommodations and adaptations (Creedon et al., 2006; Wilxzynski et al., 2007).

Areas covered in the IEP include academic achievement, self help and functional skills, social goals, behavioral goals, and the development of motor skills and communications skills (Creedon et al., 2006; Wilxzynski et al., 2007) In addition, an IEP covers what support services will be necessary for the child and any adaptations that will be necessary in the school or

classroom setting. Examples of adaptations include where the student sits in the classroom, the use of visuals to help communication, extending school days or the program to home (Creedon et al., 2006).

A special education setting is highly structured with a low student-to-teacher ratio and has accommodations available to address core characteristics of autism spectrum disorders. These accommodations may include the use of visual or communication devices to address communication problems and supportive therapies to help with sensory processing difficulties (Creedon et al., 2006).

A survey done by Hess and colleagues (2007) included 185 teacher respondents in Georgia who had a child with an autism spectrum disorder in their classroom. Of the respondents, 79% were special education teachers and 21% were general educators. Teachers indicated that skill based strategies were the most frequently used strategy in the public school setting with 47.15% of respondents using these strategies. Examples of skill based strategies used by respondents include assistive technology (22.12%), visual schedules (15.38%), structured teaching (14.42%), Picture Exchange Communication System (11.54%), and discrete trial training (10.58%).

Interpersonal Relationship Strategies were reported as the second most frequently used intervention strategy and accounted for 22.05% of respondents. Interpersonal relationship strategies used by teachers include Gentle Teaching (49.15%), Floor Time (28.81%) and relational development intervention (RDI; 10.17%). Other strategies were also identified: music and art therapy (11.79%), Physiological/Biolgoical/Neurological such as sensory integration (10.65%), and Cognitive Strategies such as social stories (8.37%).

The use of medications has been associated with a reduction in problem behaviors and increases participation in educational programs (Volkmar & Pauls, 2003; Martin, Scahill, Klin, & Volkmar, 1999). The use of medications for children with autism spectrum disorders will be explained.

Pharmacological Interventions

Pharmacological interventions do not seem to address the core deficits in autism but may be helpful in treating specific symptoms such as self injury, aggression, stereotyped movements, and hyperactivity (Volkmar & Pauls, 2003). The major tranquilizers, such as Risperidone, have been the most extensively studied. Medications such as selective serotonin reuptake inhibitors, antidepressants, and different anxiolytics have been used to treat symptoms (Volkmar & Pauls, 2003). These medications have commonly been used for treatment of behavioral difficulties, particularly repetitive behaviors, stereotyped mannerisms, and difficulties with anxiety and dealing with change (Martin, Scahill, Klin, & Volkmar, 1999). At low doses, medications can reduce problem behaviors and increase participation in educational programs; the combination of medication with behavioral interventions may be more effective than either treatment alone (Volkmar & Pauls, 2003).

School Social Work Interventions

School social workers have an important role when working with children who have autism spectrum disorders (VanBergeijk &Shtayermman, 2006; Dababnah et al., 2010). One role is providing interventions for students. There is a paucity of literature on the interventions that school social workers use for children with autism spectrum disorders. The only intervention found in the literature was the use of group therapy. Research written by social workers who use group therapy will be explored.

One example of the use of group work was illustrated in a study by Mishna and Muskat (2004), in which the researchers studied four school-based groups of four to six members each, all who received direct interventions in social skills from the school social worker along with indirect interventions consisting of consultation for teachers, parents, and peers. Principals and special education or mainstream teachers referred students with disabilities who they considered at risk and in need of social, emotional, and behavioral support. The four groups had a total of 21students, with 13 who participated in qualitative interviews and reported that the group increased their confidence in approaching peers and helped them get along better with others. They found it useful to discuss problems and express their feelings and being with peers who had similar problems helped them feel they were not alone. This study is an example of group therapy for children with disabilities and does not solely focus on children with autism spectrum disorders. Another study by Epp (2008) found group therapy to be an effective intervention for children with an autism spectrum disorder.

Epp (2008) examined the effectiveness of a social skills therapy program for school age children ages 11 through 18 in Ridgefield, Connecticut. The SuperKids program was an after school program that used group therapy with groups of approximately six children of similar age and social communication ability. Of the 79 school children who were enrolled by their parents, 66 participated in the study. The questionnaire measured positive social behaviors including cooperation, assertion, self-control, and responsibility. The problem behaviors measured externalizing behaviors (aggressive acts and poor temper control), internalizing behaviors (sadness and anxiety), and hyperactivity (fidgeting and impulsive acts). Scores revealed a significant improvement in assertion scores, coupled with decreased internalizing behaviors, hyperactivity scores, and problem behavior scores in the students. In addition to providing group

work as an intervention, school social workers have many other roles when working with a child with an autism spectrum disorder and their family.

School Social Work Role

Social workers encounter children with autism spectrum disorders in a range of areas, including child welfare settings, schools and daycares, social service organizations, governmental benefit offices, hospitals, clinics, and mental health treatment centers (Dababnah et al., 2010 p. 266). There is limited information in the literature that discusses the role of school social workers who work with children with autism spectrum disorders. Therefore, literature on the general role of social workers will be applied to understand the role of a school social worker. There are many roles a social worker has when working with children with an autism spectrum disorder and their families. Literature on this topic discusses social workers' roles from an ecological perspective including collaboration with a multidisciplinary team, involvement in the assessment process, supporting and involving family members, providing support to the school, and advocating for policy changes (VanBergeijk &Shtayermman, 2006; Dababnah et al., 2010). The role of a school social worker involved with special education students includes identifying their needs, participation in assessment process, providing services and advocating for their needs. When working with children with autism spectrum disorders the social worker has the role of educating classmates, parents, and the community about the disorders because they are often misunderstood (B. Wood, personal communication, February 25, 2011).

When working with children with an autism spectrum disorder, one important role is collaborating with other individuals in the child's life including: parents, pediatricians, psychiatrists, physical therapists, psychologists, teachers, speech therapists, neurologists, occupational therapists, and other service providers (VanBergeijk & Shtayermman, 2006, p.30).

The social workers' role is to be sensitive to how the child's disorder is impacting his/her day to day living and communicate this to the multidisciplinary team (Epp, 2008; VanBergeijk & Shtayermman, 2006; Dababnah et al., 2010).

In addition to collaborating with a multidisciplinary team, school social workers are involved in the assessment process for special education services (MSSWA, 2011; Levy, Mandell, & Schultz, 2009, Johnson et al, 2005). The assessment should take an ecological perspective, focusing on the student as well as their interaction with the school environment, home, and community (NASW, 2002). The social worker should include parents, siblings, and teachers in the assessment process because they are a valuable source of information about the child's development (VanBergeijk & Shtayermman, 2005).

School social workers are often the professionals to first encounter and recognize the characteristics of autism spectrum behaviors. As a result, in many cases they provide the first referral to psychiatrists or psychologists for diagnosis (Epp, 2008). It is important for school social workers to have an understanding of the characteristics and treatment interventions used with children who have an autism spectrum disorder (VanBergeijk & Shtayermman, 2005).

In addition, social workers should be comfortable identifying the early signs of autism spectrum disorders and using screening tools to determine if a child is at-risk for an autism spectrum disorder or other delays (Dababnah et al., 2011). Examples of these screening tools include the Checklist for Autism in Toddlers, Modified Checklist for Autism in Toddlers, Autism Behavior Checklist, and the Pervasive Developmental Disorders Screening Test-II – Developmental Disorders Screener (Baird & Charman, 2000; Robins, Fein, Barton, & Green, 2001; Krug et al., 1980; Siegel, 2004). Screening tools are not diagnostic instruments; they are used as an aid in assessing for risks of autism spectrum disorder (Dababnah et al., 2011).

In addition to direct service with children, the school social worker provides support to other members of the child's ecosystem including parents, siblings, teachers and classmates. Families of children with autism spectrum disorders may need education and support after learning about the diagnosis (Dababnah et al., 2011). VanBergeijk and Shtayermman recommended that social workers create psychoeducational support groups for parents. Support groups are helpful because parents often avoid social situations because of their child's behavior; groups assist parents in understanding the unique learning needs of their child, and the group can support parents in working with schools to meet their child's needs (2005). Other support that a social worker can provide families is to have an understanding of local autism-related resources in order to refer families for a diagnostic assessment and interventions in the community (VanBergeijk & Shtayermman, 2005; Dababnah et al., 2010).

Teachers and administrators are key people in a child with an autism spectrum disorder's ecosystem. The social worker serves as a source of support for teachers and helps them manage children's behavior in the classroom. Social workers may need to educate teachers and administrators about the needs of children with autism spectrum disorders (VanBergeijk & Shtayermman, 2005 p.32).

It can be tempting for social workers to focus their work on the needs of the individual and family and forget about the role of macro level practice (VanBergeijk & Shtayeramman, 2005). Involving macro level practice with children with autism spectrum disorders includes work in communities, advocating for policies, and providing trainings about autism spectrum disorders (Dababnah et al., 2010). Examples of this include ensuring that individuals from underserved communities receive access to screening and interventions, advocating for policies to promote public awareness, early identification, and evidence-based interventions in autism

spectrum disorders, and increasing exposure to autism spectrum disorders in graduate and post-graduate programs (Debabnah et al., 2010 p. 271). Examples of policy change that social workers could advocate for include full funding for the Individuals with Disabilities Education Act (IDEA) to help children and their families receive special education services and restructuring Social Security to include money for the treatment of autism spectrum disorders (VanBergeijk & Shtayermman, 2005).

Despite the important roles social workers serve, many are not trained to recognize or advocate for children with autism spectrum disorders and their families (Debabnah et al., 2010). A study including 23 social workers who work with children with disabilities in a British county reported inaccuracies in their understanding of characteristics associated with autism spectrum disorders (Peerce & Jordan, 2007). Almost 60% of the 23 social workers believed autism spectrum disorders were not fully developed until after three years of age. In fact, onset is found earlier and generally occurring before three years of age (American Psychiatric Association, 2000; Dababnah et al., 2010; Volkmar & Pauls, 2003). This suggests the need to educate and train social workers in early screening for autism spectrum disorders.

This purpose of this study is to explore school social workers' perspectives on working with children who have a diagnosis on the autism spectrum. This researcher found there is a paucity of literature written from the perspective of school social workers. Using a survey of school social workers, who are members of the Minnesota School Social Workers Association (MSSWA), this study examined school social workers' understanding of autism spectrum disorders, their role serving children on the spectrum and their families, and the interventions they use to serve this population. The information gathered from this study will help expand social workers' knowledge and help them prepare to work with this population.

Conceptual Framework

School social workers encounter many challenges when working with students, families, and the educational system. Since the 1900s, school social workers have been attempting to determine the value of effective practice (Clancy, 1995 p. 40). The ecological framework is one model that is helpful for school social workers to use. The National Association of Social Workers (2002) defines the ecological perspective for school social workers as the interaction between the child, family, and their environment. The ecosystems perspective helps social workers recognize that we cannot understand the functioning of an individual without examining his or her environment (Sheafor & Horejsi, 2006 p.92). Ecological theory defines effective practices as interventions that take place in microsystems, mesosystems, and macrosystems (Clancy 1995). According to this theory, school social work practice should not only be focused on the individual, rather it should include all interrelated systems that affect a child's development (Clancy, 1995).

A child's environment includes many systems that interact and affect one another at different levels. The systems that affect a child with autism spectrum disorder include a child's family, school, mental health professionals, and medical team (VanBergeijk & Shtayermman, 2006). According to Allen-Meares and colleagues, social workers are more effective when intervening in more than one system at a time (1986). Literature on the role of a school social worker serving children with an autism spectrum disorder applies an ecological perspective to describe their role (VanBergeijk & Shtauermman, 2006; Dababnah et al., 2011). The following are examples of how school social work practice involves interaction with the child, family, and environment.

Figure 1
Role of School Social Worker

The roles of the school social worker includes collaborating with a multidisciplinary team, involvement in the assessment process, supporting family and teachers, educating teachers, families, and classmates about the diagnosis, and advocating for policy changes (VanBergeijk & Shtayermman, 2006; Dababnah et al., 2011). Figure 1 visualizes the many roles a school social worker has when working with children with an autism spectrum disorder and their families.

The role of the school social worker includes collaborating with other individuals in the child's life systems (figure 2) such as parents, teachers, siblings, physical therapists, speech therapists, occupational therapists, and other service providers (VanBergeijk & Shtayermman, 2006 p. 30).

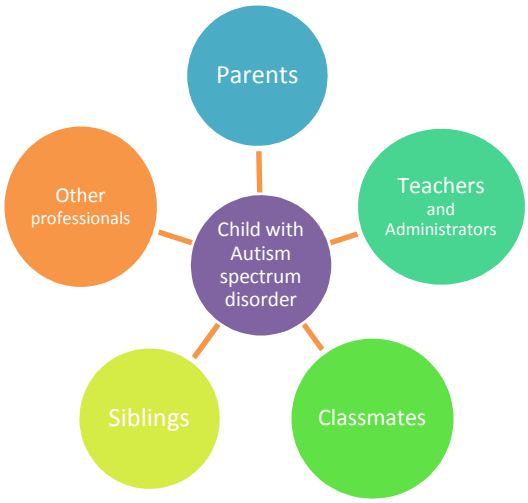

Figure 2
Individuals in a child's eco system

During the assessment process, the role of the school social worker may involve parents, siblings, and teachers because they are important individuals in the child's environment (VanBergjeijk & Shtayermman, 2006; NASW, 2002). The school social worker provides

support to other members of the child's ecosystem (figure 2) by educating parents, teachers, classmates, and siblings about the diagnosis and helping parents and teachers manage children's behavior (VanBergeijk & Shtayermman, 2005).

The purpose of this study was to explore the perspectives' of school social workers who work with children who have an autism spectrum disorder and their families. School social workers were asked about their work with the child, family, and the child's environment from an ecological perspective.

For example, in addition to serving the child, the social worker provides support to other members of the child's ecosystem including parents. Survey question 14 asked if the school social worker had ever offered a support group for parents who have children with an autism spectrum disorder (Appendix C). Survey question 17 offered the social workers an open ended opportunity to describe, in their own words, how their work with children with an autism spectrum disorder is distinct from their work with children who do not have autism spectrum disorders (Appendix C). The ecological perspective also guided the data analysis process and the integration of the findings.

Methods

Research Design

The purpose of this study was to document the perspective of school social workers who work with children on the autism spectrum. This was done by administering an online survey to school social workers who are members of the Minnesota School Social Workers Association. The research design for this project was a mixed mode design, including open and closed ended questions which focused on school social workers' understanding of autism spectrum disorders, their role serving children on the spectrum and their families, and the interventions they use to serve this population.

Sample

The population of interest for this project was school social workers who work with children on the autism spectrum. The researcher used a sampling frame of school social workers. This sample included 177 school social workers who were members of the Minnesota School Social Workers Association. A list of the 2011-2012 members was obtained, from the president of the association, after the researcher became a member of the association and requested a member list via email (Appendix B).

The respondents needed to have experience working with a child with an autism spectrum disorder and be a school social worker in order to participate in the study. Participants received a cover letter (Appendix C) via email informing them of this criteria, explaining the study, inviting them to participate, and providing a link to proceed with the survey (Appendix D). In addition, the first question on the survey (Appendix D) asked if participants met criteria.

This sample of participants is a non-probability sample chosen for convenience of obtaining an email list of members. School social workers who were not members of this

association were not represented. The researcher chose this sample to ensure participants met criteria of being a school social worker.

Protection of Human Subjects

This study was reviewed by a research committee and submitted to the St. Catherine University Institutional Review Board. Permission was obtained from the president of the Minnesota School Social Workers Association before obtaining a list of members contact information (Appendix C). Participants received a cover letter (Appendix B) informing them of their protection and voluntary nature of participating in this study. Participants consent to participate in this study was implied by completing the survey. The researcher ensured the survey was anonymous by disabling the ability to view identifying information with the results on the Qualtrics website. There were no known risks or benefits to participating in this study. The data was stored on a password protected computer belonging to the researcher. After completion of this study, the data was destroyed from the computer on or before June 1st, 2012.

Data Collection

Instrument Development

The method of measurement was an online survey using a computer program, Qualtrics. The questions on the survey (Appendix D) were developed by the researcher and based on the literature reviewed for this study. The survey was organized into four sections: 1) demographic information 2) understanding of autism spectrum disorders 3) the role of a school social worker and 4) interventions school social workers use when working with children with autism spectrum disorders and their families.

In order to increase reliability and validity, the survey was reviewed by the researcher's committee members and compared to the literature. The committee included a school social worker and special education teacher with a degree in social work who works with children with autism spectrum disorders and their families.

Data Analysis

The first step to begin data analysis was transferring the data from the Qualtrics website to the computer program Minitab to analyze the data using descriptive statistics of all the closed ended questions. The researcher did this by saving the data to an excel document and assigning a number to all variables that would be used for data analysis and recorded this on a copy of the survey to remember the coding system. For example, the variable of the type of community participants work in was assigned a number such as rural =1, suburban = 2 and urban = 3. The excel document was than uploaded into Minitab. The researcher began by running a frequency distribution or tally of all the variables. The data was than organized into tables recording the count and percent of responses for each variable to compare the data.

The last question on the survey was an open ended question (19) and was analyzed using content analysis and coding of themes (Berg, 2009). The researcher began by organizing the 11 responses into a table and assigning each response with a number indicting which of the 31 respondents answered the question. The researcher than looked for common words or phrases to develop themes. Once the themes were developed the researcher color coded the subcategories within each theme to organize the data. The respondents' answers are displayed in italics within the appropriate category or theme that it reflects.

Through the process of data analysis, the researcher discovered she made an error in the response options for survey question number 16 when she created the survey on the Qualtrics

website. Respondents were supposed to be able to answer this question by choosing *daily*, *weekly, monthly, or yearly*. The option for this question had *never* instead of *daily*. Although this presented as a problem that respondents were not able to choose *daily*, some respondents did choose *never* as their answer. This helped the researcher realize that all questions using this scale could have benefitted from having *never* as a response option.

Strengths and Limitations

There were a few limitations of this study. One concern was the sample was limited to only school social workers who are from Minnesota and members of MSSWA. The sample was not equally representative of men and women because there were only four men who were members of the association. Another concern was there could be members of the association who are not school social workers, potentially limiting the number of participants in the study.

A strength of this study was that it collected information directly from school social workers about their experiences. The open ended question allowed the participants the opportunity to share their experience instead of limiting their responses to a set of answers. This contributed to a more in depth understanding of the role of school social workers and the interventions they use when working with children on the autism spectrum.

Findings

This study was conducted with school social workers who are members of the Minnesota School Social Workers Association. Of the 177 members, 31 completed the survey for a response rate of 17.5%. Study findings are presented in 4 sections: background information, understanding of autism spectrum disorders and characteristics, role of school social worker, and school social work services and interventions.

Background Information

Table 1 displays background information about the respondents. The majority of respondents, 18 (58%) were licensed at the LICSW level. The average years of experience worked as a social worker was 20 years, with a third (n=11) of the respondents who worked for 11 to 20 years and a third (n=11) who had 21 to 30 years of experience. The average number of years of experience as a school social worker was 15 years: 10 respondents had less than 10 years experience and 13 had worked 11 to 20 years.

Respondents were asked to indicate the type of school they work in and geographic setting. Respondents represent all geographic settings: 13 (43%) worked in a rural setting and about half of the respondents (n= 17, 54.8%) worked in either a suburban or urban community (Table 1). It was most common for respondents to have experience working in an elementary school and least common for respondents to work in a high school setting. Of the 31 respondents, 11have experience working in a combination of school settings with the most respondents (n=5) working in a high school and middle school setting.

Table 1. Background Information

	Count N=31	Percent (%)
License Held		
LSW	6	19.3
LGSW	4	12.9
LISW	3	9.7
LICSW	18	58.0
Years Social Worker (n=30)		
6-10	5	16.7
11-20	11	36.3
21-30	11	36.3
31-42	3	9.9
M = 20 (S.D. = 9.2)		
Years School Social Worker		
< 10	10	32.3
11-20	13	41.9
21-33	8	25.8
M = 15 (S.D. = 8.0)		
Geographic Setting (n=30)		
Rural	13	43.3
Urban	10	33.3
Suburban	7	23.3
School Setting		
Elementary	12	38.7
Middle School	6	19.3
High School	1	3.2
HS & MS	5	16.1
HS & E	2	6.5
MS & E	1	3.2
HS & MS & E	3	9.7
Alternative School	1	3.2
Type of Training		
Professional Workshops	28	90.3
Educational In Service	21	67.7
Academic Courses	3	9.7

As noted on Table 1, respondents indicated having training in autism spectrum disorders through professional workshops (n=28) educational in service (n = 21) and/or academic courses.

Understanding of Autism Spectrum Disorders and Characteristics

The respondents were asked to indicate how confident they were in understanding the disorders that fall on the autism spectrum and the common characteristics associated with the disorders. Table 2 displays their reported confidence levels.

Table 2. Confidence with Understanding Autism Spectrum Disorders and Characteristics

	Very Confident n (%)	Confident n (%)	Neutral n (%)	Somewhat Confident n (%)
Disorders				
Autistic Disorder	4 (12.9)	20 (64.5)	2 (6.5)	5 (16.1)
Asperger's Disorder	4 (13.3)	20 (66.7)	1 (3.3)	5 (16.7)
Pervasive Developmental Disorder Not Otherwise Specified	2 (6.7)	16 (53.3)	5 (16.7)	7 (23.3)
Characteristics				
Social Interaction	12 (38.7)	18 (53.3)	1 (3.2)	-
Communication	9 (29.0)	19 (61.3)	2 (6.5)	1 (3.2)
Repetitive and Stereotypical Behaviors	8 (25.8)	19 (61.3)	3 (9.7)	1 (3.2)
Sensorimotor Processing	5 (16.1)	21 (67.7)	4 (12.9)	1 (3.2)

Overall, the respondents appear to have high levels of confidence in understanding the disorders and characteristics. The majority of the respondents rated their understanding of the disorders and characteristics as *confident.* None of the respondents indicated that they were *not confident at all* in understanding the disorders or the characteristics. The respondents were most confident in understanding challenges with social interaction with 12 (38.7%) respondents reporting a confidence level of *very confident* and 18 (53.3%) reporting *confident.*

Role of School Social Worker

Table 3 displays how school social workers collaborate with family members and other professionals when working with children with an autism spectrum disorder. School social workers reported collaborating most often with teachers: 14 collaborate with teachers on a daily basis and 15 on a weekly basis. An elementary social worker with 30 years of experience as a school social worker described her work with children with autism spectrum disorders as different from what she does with other children: *I probably spend more time consulting with parents and outside resources*. Collaboration with siblings and pediatricians was reported least often.

Table 3. Role of Collaboration

	Daily	Weekly	Monthly	Yearly
Family Members				
Parents	-	16	12	3
Siblings	-	-	10	15
School Based Staff				
Teachers	14	15	2	-
School Psychologists	1	7	16	7
Occupational Therapists	1	10	12	7
Speech Clinician	3	12	13	2
Community Professionals				
Private Therapist	-	2	17	12
Pediatricians	-	-	6	22

In addition to the role of collaboration, school social workers provide support to children with autism spectrum disorders and other individuals in the child's life. The role of advocating for the child was noted by one of the respondents who has 11 years of experience: *I advocate for fair treatment of the students on the spectrum. I am not always the favorite person for some*

because I don't always agree with what they are doing and challenge them to think outside the box.

Similar to the role of collaboration, school social workers provide support to teachers the most and siblings the least when working with a child with an autism spectrum disorder. Of the respondents, 11 reported that they support teachers daily and 13 that they support teachers weekly. Of the 24 respondents who answered this question, 15 support siblings yearly.

Table 4. Role of Support

	Daily	Weekly	Monthly	Yearly	No Resp.
Family Member					
Child	9	10	10	1	1
Parents	-	11	15	5	-
Siblings	-	2	7	15	7
School Based					
Teachers	11	13	7	-	-
Paraprofessional	9	14	6	2	-
Classmates/Peers	3	9	10	7	2
Administrators	2	11	15	2	1

Four respondents indicated that their support role involved helping others understand the disorders on the autism spectrum. An elementary school social worker with 11 years of experience stated, *it is important that people interacting with students on the spectrum get an understanding of the disorder. You have to look at things a little differently than you look at things for other students.* Another noted that she makes a *concerted effort to help peers understand the disability and to help teachers understand the unique behavior and needed interventions.* Helping others understand distinctions is part of the social work role as reported by a middle school and high school social worker. *Making a conscious effort to separate and help others separate the disability from the intelligence. What they appear to be capable of doing*

academically and what they do academically are very different. Likewise, another elementary social worker noted that *the major difference is getting people to understand the disability and understand that the child isn't just "naughty."*

Helping other individuals in the life of a child with an autism spectrum disorder understand the child's disability is one way school social workers provide support. School social workers are also involved in macro level practice. Respondents were asked to indicate how often they are involved in macro level practice for or on behalf of a child with an autism spectrum disorder. Based on their responses, most school social workers are involved in macro level practice on a yearly basis through involvement in community awareness, advocating for policies, and providing trainings on autism spectrum disorders

School Social Work Services and Interventions

Table 5 displays the respondents' responses to how often their work includes various services. Respondents are most frequently involved in providing services for the child. Of the respondents, 27 include group work as part of their practice weekly and 26 are involved in individual work with the child on a weekly basis. One elementary school social worker with 16 years of experience describes her work with the child: *individualized based on needs while other children may be able to be in group. More crisis based for ASD kids.* Another noted, *it is much more specialized, directed, and planned.*

A few respondents described the specific interventions they use when working with children with autism spectrum disorders. One high school social worker reported: *working with children with autism is focused more on the social interaction skills. Specific techniques such as social stories (although useful for other children who are not on the spectrum), 5-point scale, using visuals, and repeated practice are often implemented.* Similarly, an elementary school

social worker reported, *with my group, perhaps more repetition and practice of skill being taught.*

Table 5. School Social Work Services

	Never	Weekly	Monthly	Yearly
Group Work				
Children	2	27	1	1
Parents	20	-	2	6
Individual Work				
Children	1	26	4	-
Parents	7	4	9	8
Teachers	2	18	10	1

As noted in Table 5, respondents individually work with parents but rarely have included group work as a service. When a support group for parents has been used as an intervention it has been on a yearly or monthly basis. Respondents were asked how effective a support group was for parents; 4 found the support group to be *effective and 3 found it to be neither effective nor ineffective.*

As demonstrated by these findings, school social workers tend to be knowledgeable and confident in their understanding of autism spectrum disorders and characteristics. In addition, they have received specialized training to prepare them to work with this population and are sensitive to the distinct needs of children with autism spectrum disorders.

Discussion

This study reports school social workers' perspectives on working with children with autism spectrum disorders and their families to address the limited literature about social workers' experiences of working with children with autism spectrum disorders. These findings expand on what is known from social work perspectives (Debabnah & Colleagues, 2010; Peerce & Jordan, 2007; VanBergeijk & Shtayermman, 2006 Epp, 2008, Mishna & Muskat). Comparisons of findings related to background information about respondents, their understanding of autism spectrum disorders, their perspectives on the role of school social work and reports of interventions used are presented.

Background Information

This study included school social workers with a variety of backgrounds including level of licensure, years of experience worked, type of school worked in, geographic setting, and training received in autism spectrum disorders (Table 1). The respondents who participated in this study tended to be graduate level social workers with an average of 15 years of experience as a school social worker. Respondents represented all geographic settings and have the most experience working in an elementary school setting. All but one of the school social workers who participated in this study have received specialized training preparing them to work with children and families with autism spectrum disorders.

Only one study (Peerce & Jordan, 2007) was identified that included the perspectives of a general population of social workers who work with children with disabilities, including autism spectrum disorders and two journal articles that were written by social workers about their perspectives' on working with children with autism spectrum disorders (Debabnah et al., 2010; VanBergeijk &Shtayermman, 2006).

Overall, school social workers received specialized training to work with children with autism spectrum disorders (Table 1) which appears to be inconsistent with other reports. It may be that the suggestions of Debabnah and colleagues (2011) that social workers are not trained to recognize or advocate for children with autism spectrum disorders and their families, and those by Peerce and Jordan (2007) emphasizing a need to educate and train social workers about autism spectrum disorders are due to the context of statements about social workers in general, rather than focused specifically on those who work in schools.

Understanding of Autism Spectrum Disorders and Characteristics

Findings from this study indicate that school social workers tend to be *confident* in their understanding of the disorders that fall on the autism spectrum and the common characteristics associated with the disorders (Table 2). In contrast, Peerce and Jordan (2007) reported inaccuracies in social workers' understanding of characteristics associated with autism spectrum disorders. As noted earlier, discrepancies between these two studies may be related to the work settings of the social workers. This difference indicates that school social workers are more confident in their understanding of autism spectrum disorders because they work in a school setting that may provide them with more training opportunities.

Role of School Social Worker

Results from this study support findings that school social workers have many roles in their work with children with autism spectrum disorders including collaboration within a multidisciplinary team, supporting other members of the child's ecosystem, and involving macro level practice (VanBergeijk & Shtayermman, 2006; Dababnah et al., 2010). According to VanBerjeijk and Shtayermman, social workers collaborate with many individuals on behalf of children with autism spectrum disorders including parents, pediatricians, psychiatrists, physical

therapists, psychologists, teachers, speech therapists, neurologists, and occupational therapists (2006).

This study confirms that collaborating within a multidisciplinary team is a role that school social workers are involved in at many levels depending on the individual with whom they are consulting. Respondents collaborated more frequently with teachers, parents, and speech clinicians than with pediatricians, siblings, and private therapists (Table 3). School social workers may be more involved in working with teachers because of the setting in which they work.

Findings related to advocating for the child and helping classmates and teachers understand the child's disability were consistent with previous findings that describe school social workers as supports for other members of the child's ecosystem including parents, siblings, and teachers (Dababnah et al., 2011). Dababnah and colleagues reported that families of children with autism spectrum disorders may need education and support after learning about the diagnosis (2011); likewise teachers and administrators may need education about the needs of children with autism spectrum disorders (VanBergejk & Shtayeramman, 2005).

Respondents from this study tended to support teachers, paraprofessionals, and classmates most often when working with children with autism spectrum disorders (Table 4). One difference noted in the findings is that respondents did not commonly provide support to siblings like Vanbergeijk and Shtayermman discuss as a role of the social worker. They state siblings of children with autism spectrum disorders may need support in understanding what it means to have a brother or sister with this developmental disability (Vanbergeijk & Shtayermman, 2005).

School Social Work Services and Interventions

This study (Table 5) expands on the information reported in the literature (Epp, 2008; Mishna & Muskat, 2004) about the role of group work and other services and interventions provided by school social workers. Consistent with previous findings, group work is a common practice used by school social workers with children who have autism spectrum disorders (Table 5).

Although group work is a common practice provided for children, respondents report rarely providing a support group for parents (Table5). It has been recommended by Venbergeijk and Shtayermman that social workers should create support groups for parents because it helps them understand the unique learning needs of their child and supports parents in working with schools to meet their child's needs (2005).

Implications for Practice and Education

The findings from this study are useful for school social workers who are currently practicing or teaching, and for students interested in the field of school social work. With increased numbers of children with autism spectrum disorders in public schools (CDC, 2009) it is imperative that school social workers understand the disorders and characteristics, their role, and effective interventions when working with children with autism spectrum disorders and their families.

As demonstrated, school social workers who received training and education on autism spectrum disorders tend to be *confident* in recognizing the characteristics of autism spectrum disorders (Table 2). There may be a need to provide education and training on autism spectrum disorders to the general population of social workers to ensure they are confident in recognizing

the characteristics of autism spectrum disorders and referring children for screening. It may be beneficial to include information about autism spectrum disorders as part of curricula in college and graduate level social work programs to address this need or to implement trainings in social work settings such as hospital and county social work agencies.

Implications for Future Research

The paucity of literature and research studies on the perspective of social workers who work with children with autism spectrum disorders indicates there is a need for future research on this topic, especially from the perspective of school social workers. Additional qualitative research on this topic would add to the findings from this study. This researcher found the qualitative data was most beneficial in understanding the role and interventions of school social workers and would have liked to include more qualitative questions to further understand the interventions that school social workers use.

There are additional research topics that could expand on school social work practice and autism spectrum disorders, such as how school social workers' understanding of autism spectrum disorders has changed over time and the factors that have impacted their understanding. Other research could address the lack of services provided for parents who have children with autism spectrum disorders, such as studying the effectiveness of a parent support group. In addition, research could address the differential use of interventions for children of different ages and cognitive abilities.

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Appendix A

Diagnostic Criteria for 299.00 Autistic Disorder

A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):
    1) Qualitative impairment in social interaction, as manifested by at least two of the following:
        (a) marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
        (b) failure e to develop peer relationships appropriate to developmental level
        (c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by lack of showing, bringing, or pointing out objects of interest)
        (d) lack of social or emotional reciprocity
    2) Qualitative impairments in communication as manifested by at least one of the following:
        (a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
        (b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
        (c) stereotyped and repetitive use of language or idiosyncratic language
        (d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level
    3) restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
        (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
        (b) apparently inflexible adherence to specific, nonfunctional routines or rituals
        (c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
        (d) persistent preoccupation with parts of objects
B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.
C. The disturbance is not better accounted for Rett's Disorder or Childhood Disintegratve Disorder

Appendix A

Diagnostic criteria for 299.80 Asperger's Disorder

A. Qualitative impairment in social interaction, as manifested by at least two of the following:
    (1) marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye-gaze, facial expression, body postures, and gestures to regulate social interaction
    (2) failure to develop peer relationships appropriate to developmental level
    (3) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by lack of showing, bringing, or pointing out objects of interest)
    (4) lack of social or emotional reciprocity

B. Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
    (1) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
    (2) apparently inflexible adherence to specific, nonfunctional routines or rituals
    (3) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
    (4) persistent preoccupation with parts of objects

C. The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning.
D. There is no clinically significant general delay in language (e.g., single words used by age 2 years, communicative phrases used by age 3 years).
E. There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behavior (other than in social interaction), and curiosity about the environment in childhood.
F. Criteria are not for another specific Pervasive Developmental Disorder or Schizophrenia.

Appendix A

299.80 Pervasive Developmental Disorder Not Otherwise Specified (Including Atypical Autism)

This category should be used when there is severe and pervasive impairment in the development of reciprocal social interaction associated with impairment in either verbal or nonverbal communication skills or with the presence of stereotyped behavior, interests, and activities, but the criteria are not met for a specific Pervasive Developmental Disorder, Schizophrenia, Schizotypal Personality Disorder, or Avoidant Personality Disorder. For example, this category includes “atypical autism”—presentations that do not meet criteria for Autistic Disorder because of late age at onset, atypical symptomatology, or subthreshold symptomatology, or all of these.

Appendix B

Hi Marnie,

I have attached a copy of the MSSWA membership list. In the past students have created an email explaining their research in a short paragraph and if they are completing a survey, include that survey link. You would then send the email to me and then I can forward the email to our regional representatives who will then forward it to all the members in their region. This way you are reaching all our members. Whatever you decide to do is okay with me.
Thanks and good luck,

Tammie Knick, LGSW
MSSWA President
GFW Middle School

Appendix C

School Social Workers' Perspectives on Working with Children with Autism Spectrum Disorders

Dear School Social Worker,
You are invited to participate in a research study investigating school social workers perspectives on working with children with autism spectrum disorders. This study is being conducted by Marnie Eveslage, graduate social work student at St. Catherine University/University of St. Thomas, School of Social Work. My advisor is Carol Kuechler, MSW, Ph.D., LISW, a faculty member in the school. You were selected as a possible participant in this research because you are listed as a member of the Minnesota School Social Work Association. Please read this email before you decide to participate in this study.

Background Information
The purpose of this study is to examine school social workers' understanding of autism spectrum disorders, their role serving children on the spectrum and their families, and the interventions they use to serve this population. Approximately 177 people are expected to participate in this research.

Procedures
If you decide to participate, you will be asked to follow a link provided in this letter to a survey on Qaultrics, complete the survey, and submit it once you have finished. This survey will take approximately ten minutes to complete. There are no known risks or direct benefits for participating in this study.

Confidentiality
Participation in this study is completely anonymous. I will ensure the survey responses are set as anonymous by disabling my ability to view identifying information with the results in the Qualtrics online software. In any written reports or publications, no one will be identified or identifiable and only group data will be presented.

I will keep the research results in a password protected computer in my home and only I will have access to the records while I work on this project. I will finish analyzing the data by June 1, 2012. I will then destroy all original reports and identifying information that might be linked back to you.

Voluntary nature of the study
Participation in this research study is voluntary. Your decision whether or not to participate will not affect your future relations with Minnesota School Social Workers Association or St. Catherine University/University of St. Thomas in any way. You can refuse to answer any question on the survey. If you decide to participate, you are free to stop at any time without affecting these relationships, and no further data will be collected. Your consent to participate in this study is implied by your completion of the survey.

Contacts and questions:
If you have any questions, please feel free to contact me at 507-269-1412 or Conn6579@stthomas.edu. If you have additional questions you may contact my research advisor, Carol Kuechler at 651-690-6719 or cfkuechler@stkate.edu. If you would like to talk to

someone other than the researcher or advisor, you may also contact John Schmitt, PhD, Chair of the St. Catherine University Institutional Review Board, at (651) 690-7739.

Thank you for your consideration in participating in this study.

Please click here to indicate that you have read this email, had your questions answered, and to participate in this survey.

www……..@qualtrics.com

Appendix D

School Social Workers' Perspectives on Working with Children with Autism Spectrum Disorders

Welcome and thank you for participating in this study! The following questions will be measuring your confidence in understanding autism spectrum disorders, your role as a school social worker, and the interventions used to work with this population. The survey is organized into four sections: 1) Demographic information, 2) Understanding of autism spectrum disorders, 3) Role of the school social worker, and 4) Interventions school social workers use.

DEMOGRAPHIC INFORMATION

1. Are you or have you worked as a school social worker and with children with autism spectrum disorders?

   Yes No

   If no, please do not proceed in taking this survey. Thank you for considering and have a good day.

2. What type of school do you work in? (Circle all that apply).

Elementary	Yes	No
Middle School	Yes	No
High School	Yes	No
Other	Yes	No

3. How would you characterize the community you work in?

   __Rural ___Suburban ___Urban

4. What level of licensure do you hold?

   LSW
   LGSW
   LISW
   LICSW
   Other (please specify)

5. How many years have you been a social worker?

6. How many years have you been a school social worker?

7. Have you received specialized training to work with children who have an autism spectrum disorder?

   Yes No

8. If yes, what type of training have you received? (Check all that apply)
   ___Educational In Service
   ___Professional Workshops
   ___Academic Courses
   ___Other (please specify)

UNDERSTANDING OF AUTISM SPECTRUM DISORDERS

9. The disorders that fall on the autism spectrum include autistic disorder, Asperger's Disorder, and pervasive developmental disorder not otherwise specified (PDDNOS) Based on your experience, how confident are you with your understanding of these disorders?

	Very confident				Not confident at all
Autistic Disorder	5	4	3	2	1
Asperger's Disorder	5	4	3	2	1
Pervasive Developmental Disorder Not Otherwise Specified	5	4	3	2	1

10. Based on your experience, how confident are you with your understanding of some characteristics often associated with a diagnosis on the autism spectrum?

	Very Confident				Not confident at all
Challenges with Social interaction	5	4	3	2	1
Challenges with Communication	5	4	3	2	1
Repetitive and stereotypical behaviors	5	4	3	2	1
Challenges with Sensorimotor Processing	5	4	3	2	1

ROLE OF SCHOOL SOCIAL WORKER

11. The role of a school social worker is collaborating with a multidisciplinary team. Based on your experience, how often do you think it is that you would collaborate with the following partners when serving a child on the autism spectrum?

	Daily	Weekly	Monthly	Yearly
Parents	4	3	2	1
Siblings	4	3	2	1
Teachers	4	3	2	1
School psychologists	4	3	2	1
Occupational Therapist	4	3	2	1
Speech Clinician	4	3	2	1
Private therapists	4	3	2	1
Pediatricians	4	3	2	1
Other (Please specify)	4	3	2	1

12. School social workers provide support to other members of a child with an autism spectrum disorder's ecosystem including parents, siblings, and teachers. Based on your experience, how often do you provide support to the following:

	Daily	Weekly	Monthly	Yearly
Parents	4	3	2	1
Siblings	4	3	2	1
Teachers	4	3	2	1
Paraprofessional	4	3	2	1
Classmates and Peers	4	3	2	1
Administrators	4	3	2	1
Other (Please specify)	4	3	2	1

13. Involving macro level practice is another role a school social worker has when working with children with autism spectrum disorders. Based on your experience, how often are you involved in the following on behalf of children with autism spectrum disorders?

	Daily	Weekly	Monthly	Yearly
Community awareness	4	3	2	1
Advocating for policies	4	3	2	1
Providing trainings on autism spectrum disorders	4	3	2	1
Advocating for the child	4	3	2	1
Consultation with professionals	4	3	2	1
Other (please specify)	4	3	2	1

INTERVENTIONS

14. It is suggested in the literature that school social workers sometimes provide educational support groups for parents who have a child with an autism spectrum disorder. Based on your experience, have you ever offered a support group for parents?

Yes No

15. If yes, how effective do you think this intervention is for parents?

Very Effective Not at all

5 4 3 2 1

16. How often does your work with children with autism spectrum disorders include the following?

	Daily	Weekly	Monthly	Yearly
Group work with children	4	3	2	1
Group work with parents	4	3	2	1
Individual work with				

children	4	3	2	1
Individual work with parents	4	3	2	1
Individual work with teachers	4	3	2	1
Due Process	4	3	2	1
Consultation	4	3	2	1
Referrals to resources	4	3	2	1

17. In your own words, please describe how you work with **or on behalf** of children with autism spectrum disorders is distinct from your work with children who do not have autism spectrum disorders.