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Abstract
The high prevalence of ADHD continues to present a challenge, particularly in high poverty urban schools. Low-income children of color are both more likely to be diagnosed with the disorder and more likely to be under-treated compared to their Caucasian peers. While significant attention is paid to what teachers across a variety of school settings know about ADHD, little is known about school social workers knowledge of ADHD. In addition, little is also known about the collaborative processes by which school social workers support teachers in addressing ADHD in urban schools. Utilizing a mixed-methods survey design, this study explored urban elementary school social worker knowledge of ADHD and inter-disciplinary collaboration processes between school social workers and teachers. Findings indicated that urban elementary school social workers *N*=43 had strong knowledge of ADHD causes and symptoms. No significant differences were observed when compared to their suburban elementary school colleagues *N*=24 as measured by The ADHD Belief and Attitudes Scale (Johnston and Freeman, 2002). A directive content analysis of responses for *N*= 43 urban elementary school social workers further revealed key findings. First, school social workers were able to identify a number of behavioral and instructional strategies applicable to students with attention related difficulties. Secondly, while collaboration between teachers and school social workers may occur during participation in interdisciplinary school teams and informal discussions, time constraints and teacher receptiveness presented as major barriers for consistent and effective collaboration. Given the limited resources of many urban school settings, it would benefit schools to promote the role of the school social worker and collaborative practices with teachers in addressing ADHD and similar disruptive behavior disorders within the classroom.

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We Need To Talk:
Advancing Urban School Social Worker Knowledge of ADHD and Collaboration with Teachers

Mery F. Diaz, MSW, LCSW

A DISSERTATION

in

Social Work

Presented to the Faculties of the University of Pennsylvania

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Degree of Doctor of Social Work

2011

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Abstract

The high prevalence of ADHD continues to present a challenge, particularly in high poverty urban schools. Low-income children of color are both more likely to be diagnosed with the disorder and more likely to be under-treated compared to their Caucasian peers. While significant attention is paid to what teachers across a variety of school settings know about ADHD, little is known about school social workers knowledge of ADHD. In addition, little is also known about the collaborative processes by which school social workers support teachers in addressing ADHD in urban schools. Utilizing a mixed-methods survey design, this study explored urban elementary school social worker knowledge of ADHD and inter-disciplinary collaboration processes between school social workers and teachers. Findings indicated that urban elementary school social workers N=43 had strong knowledge of ADHD causes and symptoms. No significant differences were observed when compared to their suburban elementary school colleagues N=24 as measured by The ADHD Belief and Attitudes Scale (Johnston and Freeman, 2002). A directive content analysis of responses for N= 43 urban elementary school social workers further revealed key findings. First, school social workers were able to identify a number of behavioral and instructional strategies applicable to students with attention related difficulties. Secondly, while collaboration between teachers and school social workers may occur during participation in inter-disciplinary school teams and informal discussions, time constraints and teacher receptiveness presented as major barriers for consistent and effective collaboration. Given the limited resources of many urban school settings, it would benefit schools to promote the role of the school social worker and collaborative practices with teachers in addressing ADHD and similar disruptive behavior disorders within the classroom.

DEDICATION

To Wilson E. Batista (1977-2006), thank you for your friendship, your humor, and your inspiration.

To all those who dedicate their lives to educating children, and working to create for them a better, equal, and more caring world.

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We Need To Talk: Advancing Urban School Social Worker Knowledge of ADHD and Collaboration with Teachers

INTRODUCTION

"In addition to providing direct services to youth in need, school social workers have opportunities to influence positive child outcomes indirectly through mental health consultation with teachers, ranging from education regarding child mental health issues to problem solving specific behavioral concerns."

(Lynn, McKay & Atkins, 2003, p.203)

Although a school's primary mandate is to educate children, it is increasingly understood that to meet conditions for teaching and learning and subsequently support academic achievement, attention must be paid to the psychosocial issues of children (Adelman & Taylor, 2000; Gonzalez, 2005; Policy Leadership Cadre for Mental Heath in Schools, 2001). Increasingly, teachers find themselves struggling to address both the academic and behavioral concerns of students, and the prevalence of ADHD has magnified this challenge. Approximately 3-8% of school-aged children meet the criteria for the disorder, placing at least one child with ADHD in every American classroom (APA, 2000; NIMH, 2007). Problem behavior characteristics associated with this diagnosis are more likely to occur in school because there is higher demand for children to self-regulate and acquire self-efficacy skills (Schwean, Parkinson, Francis, & Lee, 1993). Beyond behavioral manifestation, a diagnosis of ADHD also carries multiple risk factors: comorbidity with other psychological disorders; learning disabilities; poor educational outcomes; health related issues; and poor social outcomes (Barkley, 1998;

Kube, Peterson, & Palmer, 2002).

In spite of the growing research focusing on the ADHD knowledge of teachers, and understanding of effective strategies to address the disorder in classrooms, many teachers still lack sufficient knowledge of early detection, the skills for effective management of ADHD, and the required supports to develop and implement appropriate interventions that will enable children with these characteristics to function successfully in the classroom. As such, teachers continue to require support in addressing ADHD. Particularly in need of supports, are teachers working in high poverty urban schools with limited resources, and where children experience elevated risks for psychosocial stressors and barriers to mental health services. Students in high poverty schools are likelier to exhibit disruptive externalizing behaviors than those in average school settings. At the same time, these students require more support and attention from staff which often impacts on schools' abilities to engage and provide instruction for all students (Brooks-Gunn & Paikoff, 1993; Stormshak, Bierman, Bruschi, Dodge, & Cole, 1999; Warren et al., 2006). In an era of increased focus on academic achievement, staff proficiency, and accountability in schools, identifying supports to address these challenges is crucial.

Among the various existing School-Based Mental Health models, (SBMH) research has found that the collaborative effort of school personnel is one the most influential characteristics for addressing the challenging socio-emotional needs of students. Within these models, school social workers have been identified as critical collaborators in developing interventions for students with ADHD (Adelman & Taylor, 1997; Brener, Weist, Adelman, Taylor, & Vernon-Smiley, 2006; Clancy, 1995 ; Duerr & Duerr, 1996; Frey & Nichols, 2003; Garret, 2006; Gibleman, 1993; Gonzales, 2005;

Lynn, Mckay, & Atkins, 2003; Mckay, Stoewe, McCadam, & Gonzales, 1998; O'Neill, Williams, Sprague, Hornemr, & Albin, 1993). While significant attention is paid to teacher knowledge-base of ADHD, little is known about school social workers knowledge of ADHD, how these symptoms manifest in the classroom, and the collaborative processes by which they support teachers in addressing ADHD. If school social workers are expected to offer support to teachers around issues of ADHD, these areas need to be explored. What follows is a review of the literature as it pertains to ADHD, high poverty urban schools, the needs of teachers for addressing students with ADHD in their classroom, school social worker's preparation for addressing ADHD, and the role that school social workers may play in collaborating with teachers in the management of children with ADHD. Next, an original empirical study is described in which specific knowledge among school social workers is ascertained; and finally, conclusions and implications for school social work practice and teacher collaboration are provided.

CHAPTER I: BIO-SOCIAL DETERMINANTS OF ADHD

"What will determine whether or not this child is labeled ADHD? If given the label, what is it that differentiates the child from other intense, highly energetic, or stressed kids who are not diagnosed with ADHD?...The sole usefulness of labeling (or diagnosing) a child is in the hope that doing so will improve our ability to help the child learn, develop, and relate to others in a happy and healthy way."

(Jacobelli & Watson, 2008, p.9)

The World Health Organization has predicted that by the year 2023, diagnosable psychiatric disorders in children will have increased by over 50% and will become one of the leading detrimental factors affecting children's health worldwide (World Health Organization, 2004). In the United States alone, it is estimated that 20 percent of children are in need of mental health services (US Department of Health and Human Services, 2000). Low income children of color living in inner-city areas - especially- are more vulnerable to psychological and physiological stressors, than their Caucasian peers and at the same time experience marked barriers to mental health services (Day-vines & Day-Hairston, 2005; Gonzalez, 2005; Miller, Nigg, & Miller, 2009; Tucker & Dixon, 2009).

Among the most researched, diagnosed, and clinically and educationally referred disorder in children in the United States, is Attention Deficit Hyperactivity Disorder (ADHD) (Gordon, et al., 2006; Pastor & Ruben, 2008). Described as a neurobiological disorder that affects learning and behavior, the National Health Survey (2008) places the prevalence rates for diagnosed ADHD anywhere between 3-8% (or 5 million) for school-age children between the ages of 6-17 (Pastor & Ruben, 2008). This rate has been

increasing steadily since 1997 (American Psychiatric Association, 2000; NIMH, 2007). Subsequently, prevalence rates for ADHD also account for approximately 30-40% of all referrals made to child mental health clinics and primary care physicians (Connors et al., 2006).

Diagnosis and Risk Factors

The DSM-V-TR defines ADHD as persistent, pervasive, impairing and developmentally excessive levels of hyperactivity, impulsivity, and inattention (APA, 2000). There are two main measurable characteristic domains to ADHD; inattention-disorganization and hyperactivity-impulsivity. These domains are used to establish the following subtypes:

1. Predominately hyperactive-impulsive type
2. Predominately inattentive type
3. Combined type

In order to meet criteria for the diagnosis, a child's symptoms must have been present before the age of 7 and must also be present in at least two of the following environments: home and school, or work. The classroom, especially, can be an extremely difficult environment for children with ADHD because it requires children to engage in behaviors that are precisely contrary to the core characteristics of the disorder (Kos, Richdale, & Hay, 2006). Children with ADHD may experience difficulties following teacher instruction; classroom rules and staying on task; may speak inappropriately; and may have trouble staying seated (Pfiffner & Barkley, 1990). As a result, they may also exhibit lower academic performance and higher grade retention rates, along with higher rates of suspensions and expulsions (APA, 2000).

It has been estimated that more than half of children diagnosed with ADHD will

retain the diagnosis into adulthood (Shelley-Tremblay, & Rosen, 1996). A diagnosis of ADHD carries other significant risk-factor for disorders including learning disabilities, disruptive behavior problems-defiance, aggression, anger, tantrums, and antisocial behaviors- adding to the challenge of meeting children's educational needs (Pastor & Ruben, 2008; Purdie, Hattie, & Carrolle, 2002). ADHD is also correlated with other mental disorders, health issues, school-related difficulties, family and peer relationship problems, and later social and occupational problems (Smith, Barkley, & Shapiro, 2006; Willoughby, 2003). Although ADHD tends to be more common in boys than in girls at a 6:1 ratio, research has begun to focus on better understanding the patterns of ADHD in girls as the symptoms may manifest differently for them (Barkley, 1990). Girls tend to exhibit poorer social functioning, and may be at higher risk for developing social problems, and are more likely to have predominately inattentive symptoms rather than exhibit hyperactivity (Abikoff et al., 2002; Carlson, Tamm, & Gaub, 1997).

Despite what is known about the onset and prognosis of the disorder, assessment and treatment continue to be challenging and complex areas for researchers. There appears to be some general consensus in the field that a combination of behavior modification and medication management are necessary in order to normalize functioning (Abramowitz & O'Leary, 1991; DuPaul & Eckert, 1997; Pelham, Wheeler, & Chronis, 1998). The Center for Disease Control (2005) analyzed data from the 2003 National Survey of Children's Health and reported that of those children who were diagnosed and treated, approximately half (56%) were taking medication for the disorders. Research notes, however, that about one third of children prescribed medication for ADHD do not appear to benefit from these. Often, dosage levels are not appropriately regulated to fit

the metabolism of children. Other times children may not take the medication appropriately, they may experience adverse reactions, or the medication may simply be ineffective (Franklin, Harris, Allen-Meares, 2008). Despite the increasing number of school age children who are diagnosed with ADHD, many still remain undiagnosed and untreated. International data suggest that about one quarter of children meeting the diagnosis are not receiving medication treatment (Rey & Sawyer, 2003). Conversely, there are concerns about misdiagnosis in the United States and overtreatment of ADHD has also become a major public health concern (Sawyer, Rey, & Graetz et al; 2002; Sayal, Goodman & Ford, 2006).

If children are not obtaining the appropriate diagnosis or treatment and are increasingly exhibiting difficulties in the classroom, the need for school-based interventions -more specifically classroom strategies that help manage the issues of children with ADHD characteristics- becomes essential (Fabiano & Pelham, 2003; Sayal, Goodman & Ford, 2006). Research and treatment for ADHD, however, remain primarily focused on medication management approaches that make claim to the enhancement of educational outcomes. In a meta-analysis of 74 pharmacological, behavioral and educational studies, Purdie et al, (2002) found that pharmacological/medication treatment was the most commonly reported intervention for children with ADHD even when the setting of interest was in the classroom. If environmental factors, such as the physical and socio-emotional environment of children, are also known to exacerbate the conditions of ADHD, then implementing ecological interventions may seem a more appropriate approach to best address the condition (Atkins, et al., 2003; Germain, 1979; Mueller, 1993). Ecological interventions target the individual child, classroom and school level

systems, as well as community based interventions. In 1999, the MTA Cooperative Group conducted The Multimodal Treatment Study of Children with ADHD (MTA Cooperative Group, 1999). This study of 579 children between 7-9 years of age, focused on discovering the most efficacious treatment for children diagnosed with ADHD. The results of the study suggested that children who received counseling services, parental and educational support, and medication had the most success in academic adjustment, increased parental management, and child management of behaviors. It is beyond the scope of this paper to address the arguments for and against medication management of ADHD in children, but there is growing evidence that focusing primarily on medical treatments is of little help to teachers within the classroom when many children go undiagnosed and are not afforded treatments to help manage the symptoms of ADHD (Erk, 2000; Miller et al., 2009; Tucker & Dixon, 2009). Additionally, ADHD symptoms are likely to require more innovative and creative counseling approaches that are dynamic, action-oriented, and beyond the domain of traditional talk therapy and medication (Hanna, Hanna, & Keys, 1999).

Just as the focus on effective holistic treatment for ADHD has gained momentum, so has the interest in understanding risk factors related to the disorder. The correlation between poverty, race, and prevalence of the diagnosis undoubtedly requires attention. In this effort, the challenges faced by African American and Latino children in inner-city areas have recently come under considerable attention.

Risk Factors for Inner-City Children of Color

Given the health and mental health care disparities existing in the US, greater attention is being paid to the risk-factors affecting inner-city children of color related to the prevalence of ADHD. Children living in poverty face higher levels of stress which may lead to greater incidents of child abuse, anxiety, depression, drug use and other problem behaviors (McKay, Lynn, & Bannon, 2004). Among those children living in poor communities, African American children at 35.7%, and Latino children at 33.1% are overrepresented and consequently face greater risks among all children living in poverty for experiencing a variety of psychosocial stressors (Buka, Stichick, Birdthistle, & Earl, 2001; Center for American Progress, 2010; Jemmott, Jemmott, Huchison, Cederbaum & O'leary, 2008; U.S. Census Bureau, 2009).

Race, class and gender play important roles in the prevalence of ADHD in a manner that is both significant and complex. The National Health Survey (2008) found that children from low-income families and single-mother household were more likely to be diagnosed with ADHD compared to those children from two parent households or incomes above $100,000. African American males are not only overrepresented among children living in poverty (Kendall & Hatton, 2002; U.S. Census Bureau, 2009), but also experience the highest rates of diagnosed ADHD diagnosis (NIMH, 2007; Tucker & Dixon, 2009). In addition, African American males have the highest referrals to mental health services, but are the least likely to receive them (Chow, et al., 2003). As a group, they are also more likely to be prescribed psychotropic medication (Kuno & Rothboard, 2005) and amore likely to be enrolled in special education services at a rate of 21-25% although they only comprise 16% of the national public school population (US Dept. of

Education 1996).

It is important to note that although non-black and non-white, Latino children are less likely to be diagnosed with ADHD compared to their African American and Caucasian peers, they still experience elevated risk for the disorder. A few factors may influence the under-diagnosis and under-treatment in Latino youth: they are often less likely to be referred to or utilize services; they may experience language barriers and lack of mental health service access in their communities; lack of health insurance coverage; persistent cultural stigmas against seeking help; and scarcity of receptive and culturally compatible service providers (Chow, Jaffee, & Snowden 2003; Miller et al, 2009; Stevens, Harman, & Kelleher, 2006; Sayal et al., 2003). In addition, when connections are made to community agencies, these report a struggle to sustain services and programs due to limited economic resources (Gottfredson & Gottfredson, 2002). As a result, even families who are connected are then left in danger of losing services.

Intervention Programs and the Economics of ADHD

Children spend the majority of their day in schools and as such, this setting becomes a natural interface between students and service provision. An estimated 70-80% of children receiving mental health services do so at school (Hoawood, Burns, Kingeiser, & Schoawald, 2002). The federal mandate IDEA (Individuals with Disabilities Education Act) requires schools to provide some type of special education services for children with academic and emotional needs (IDEA, 2004). ADHD has become the top reason cited for referral of children to special education services (Wagner & Blackorby, 2002). Although children with ADHD are increasingly represented among those

receiving special education services, it is not currently considered a separate disability category. The Federal Education Department of Education, however, argued that ADHD can be considered a "physical or mental impairment" and therefore a child with this diagnosis may be eligible for services. Despite the inclusion of ADHD in special education, these services may not specifically target the conditions of students with ADHD, and not all children with ADHD may be eligible for special education services (Reid & Katsiyannis, 1995).

The maintenance of special education programs carries significant costs and can average an approximate $6500 a year cost per pupil (Chambers, Shkolnik, & Perez, 2003). National expenditures show that, 6.7% of school dollars ($15.6 billion) go to student support services under this mandate (Monk, Pijanowski, & Hussain, 1997). Given the need for services and high levels of costs, it is remarkable that IDEA continues to be considered the largest, under-funded federal mandate with funds covering only 7% of the total cost needed to cover implementation (Monk, Pijanowski, & Hussain, 1997).

Accordingly, in efforts to reduce costs and redirect resources to regular education settings where all children with varying degrees of need may be targeted, a major addendum was made to IDEA in 2004- Response to Intervention (RTI). This new mandate has a significant impact on teachers capacity to address the learning and behavioral needs of children. It charges teacher with conducting assessments and making adjustments to evidence-based instructions, so that each child is given the opportunity to succeed in their current general education classroom setting before a full special education evaluation can be sought (U.S. Department of Education, Office of Special Education Programs, and National Center on Response to Intervention, 2009). This

approach calls for constant progress monitoring by teachers and support staff, data collection over time, and adjustment of instruction for individual children who are struggling. Along with the American Disabilities Act this mandate supports the placement of children in the least restrictive setting and/or maintenance in general education classrooms (IDEA, 2004; Turnbull, Turnbull, Shank, & Smith, 2004). Whereas the previous law drew a clear distinction between special education and general education, the current amendment calls for a relationship between the two service deliveries where collective work is sought to prevent academic failure. In other words, all education personnel are accountable for student's success and teachers are expected to address a myriad of academic and emotional concerns within their classrooms.

In addition to federal mandates, many schools have also adapted a variety of school-based mental health programs and school-based clinics to address the psychosocial needs of children. However, they too come with a range of systemic challenges. There continues to exist, a fragmentation of SBMHS at the policy level due to the lack of laws and regulation to financially support more integrated systems (Brener et al., 2006; PLCMHS, 2001). Agency shut-downs occur frequently as a consequence of insufficient funds or insufficient referrals. Agencies are also vulnerable to staff attrition that then results in discontinuation of services for children. Finally, overtime many schools may find themselves unable to provide on-site space for clinics to continue to operate (Brener et al., 2006).Understandably, over-reliance on outside agencies to provide services may not be the most effective approach to service delivery for at-risk children in schools.

Although there has been much progress in school-based mental health models of

interventions, there is still significant need for evidenced-based research on their effectiveness (PLCMHS, 2001). Research to date supports the "promise" of school-based mental health programs, but the ongoing growth of these approaches continues to require assessment of their effectiveness and their current utility in schools (Adelman & Taylor, 2006; Brener et al, 2006; Lynn et al, 2003). The quantity and quality of school-based mental health clinics, the skill level of staff providing services, and the extent to which these meet the needs of students remains unclear (Teich et al., 2007; Brener et al., 2006). Furthermore, it is unknown to what extent there is a collaborative and consultative process with teachers during service provision. Reduction in overreliance of school personnel on agency-based services is essential, as is the increase of in-school personnel's capacity to implement appropriate evidence-based classroom strategies for the general student population.

Understanding the effectiveness if these programs is crucial in light of the current economic environment that elevates competition for resources and the elevated focus on eliminating the achievement gap. Preliminary estimates for the cost of ADHD take into account costs related to education services, mental health treatment, and juvenile justice system involvement. The overall annual societal costs are conservatively estimated to be somewhere between $36 billion and $52 billion dollars (Pelham, Foster, & Robb, 2007). This is critical information for policy makers, along with those who impact the development and justification of planning and intervention for low-income urban schools.

The Problem in High Poverty Urban Schools

"Most people believe that schools were good enough when they were children and that they are good enough now. But the dynamic growth of our system of education has spawned serious problems of educational quality."

(Diane Ravitch, 2011)

Recent U.S census data indicate that child poverty currently at 20.7% continues to be on the rise, and much of it is concentrated in urban communities (Douglas-Hall & Koball, 2004; U.S. Census Bureau, 2009). Further national data show that approximately 42% of urban school students are eligible for free school lunches as defined by the Department of Education's High Poverty Schools (US Department of Education, 1996). The Council of the Great City School reports that the majority of students attending urban public schools in the 100 largest school districts were Hispanic or Black (Council of the Great City School, 2009).

A great number of urban schools are situated in communities strained with high poverty and high levels of crime (Center for American Progress, 2010; William et al., 2007). Schools in high poverty urban areas inherit the problems of the communities in which they are located and the children that live within them. As such, they also struggle to serve children appropriately and effectively. Low-income children begin to fall behind their peers, cognitively and developmentally, at a very young age and ultimately have difficulty catching up at later points (Center for American Progress, 2009). The effects of increasing violence, drug use, and poverty in low income communities place minority children at substantial risk for mental health issues (Gorman-Smith & Tolan, 2003). These social and systemic stressors, coupled with the rigorous mandates of No Child Left

Behind (NCLB) (P.L 107-110) -that demand increased performance standards and accountability for both staff and students alike- may also drastically affect the ability of inner-city youth to function in classrooms, family settings, and social activities with same-age peers (Landau, Milich, & Diener, 1998).

Although poor children experience considerable stressors, academic success is more strongly linked to schools that are able to reduce disruptive classroom behavior, can support and engage students positively, and that can have an impact on the socio-emotional, behavioral, and mental health of students (Gorman-Smith & Tolan, 2003; Kellam et al., 1998). However, the schools that are embedded in low-income communities are unlikely to have the capacity to provide these supports for their students. Research speaks to neighborhood social disorganization as being highly correlated with level of disorder in schools, student body composition, level of staffing and resources, organizational climate, range of parental involvement, and support and security (Bowen & Van Dorn, 2002; Garbarino & Crouter, 1978; Gottfredson & Gottfredson, 1985; Laub & Lauritsen, 1998). The effects of these challenges become apparent in the level of disruptive behaviors experienced in high poverty schools.

The prevalence rates for children's disruptive and externalizing behavior are three times higher in high poverty urban schools than in average schools (Stormnshak, Bierman, Bruschi, Dodge & Cole, 1999; Tolan & Henry, 1996). While in an average school somewhere between 1-7% of students exhibit serious levels of disruptive behaviors and disciplinary needs, in urban schools a little more than half of the students can fall into the same categories requiring an enormous amount of targeted interventions for academic and behavioral needs (Baker, Kamphaus, Horne, & Windsor, 2006; Walker,

et al., 1996). Schools that are not prepared to meet the behavior needs of students can also drive staff responses to these behaviors to be counterproductive. These interactions, rather than addressing and diffusing disruption, in turn, exacerbate the behaviors.

Staff in high poverty urban schools often does not have the systems and skills to address children's educational and socio-emotional concerns, and many find themselves becoming demoralized, disempowered, exhibiting high staff absenteeism, and ultimately resulting in high turnover rates for their schools (Able & Sewell, 1999). In this light, high poverty urban schools may be challenged to meet the needs of students with ADHD. Teachers, in particular, may experience the pressure and demands to address these issues without the proper training and supports. The following section will review the literature on teacher knowledge, challenges, and perceived supports needed for the management of ADHD in their classrooms.

CHAPTER II: HOW TEACHERS MANAGE ADHD

"An issue that cannot be neglected is the acknowledgement that funds, resources, and staffing for public schools continue to be less than ideal, which leads to the expectations that teachers should just "do more." Teachers must not only be good teachers and motivate their students, but also, rally parents, ensure safety, and identify children who may need services for mental health or behavioral problems, in addition to countless other duties."

(Williams et al., 2007, p.104)

Although somewhat limited, there has been increasing research on teacher knowledge of both ADHD and classroom management of children with ADHD. Much of the research speaks to effective strategies and interventions. While overall effectiveness was more significant for behavioral outcomes than educational outcomes and for medication interventions rather than educational, psychosocial, or parent training interventions, Purdie et al., (2002) described effective interventions as consisting:

> " primarily of classroom academic management or the arrangement of learning environment in particular ways, such as reducing noise levels, structuring classrooms formally as opposed to informally, seating ADHD children in front seats, and providing frequent breaks between learning tasks."

(Purdie et al., 2002, p.68)

Further, school-based interventions for children with ADHD have been found to involve both general school-wide programs as well as teacher specific procedures. These include team approaches, service plans, behavior management, family involvement, social skills training, and self-instruction (McMullen, Painter, & Casey, 1994). More specific strategies instruct the teacher to provide positive reinforcement, enable self-

regulation with problem solving techniques and self-evaluation, institute peer-tutoring, and to provide computer assisted instructions (Abramowitz & O'Leary, 1991; Dupaul & Eckert, 1998). The combination of strategies is an attempt to address the three main characteristics of ADHD: impulsivity, inattention, and hyperactivity within the classroom (Nowacek & Mamlin, 2007). Although ADHD evidence-based interventions are available, many teachers are not aware of them or do not receive training (Pelham et al, 1998). Consequently, many teachers still express the need for assistance in understanding ADHD in children and how to address them.

Where Teachers Need Help

Despite their best intentions to implement effective classroom interventions, many teachers may still find themselves ill-equipped to meet the multiple needs of children with ADHD (Burke & Paternite in Evans et al., 2007: Fabiano & Pelham, 2003). Nowacek and Mamlin (2007) discussed two major findings in their investigation of teachers' understanding of ADHD characteristics, and academic and behavioral modifications. In a two-part study, the first of which utilized semi-structured questions and classroom observations with four elementary general school teachers, the researchers explored teachers' understanding of general characteristics of students with ADHD and the behavior modifications they implemented with these students. The second part consisted of a multiple case study with two small rural middle grade teams of two teachers in the south. There were two major findings: the first indicated that teachers provided few modifications for individual children with ADHD, and the second indicated that the interventions employed were nonsystematic and idiosyncratic.

Although it appears that most teachers in both, special education and general education settings report utilizing some type of classroom/behavioral intervention, these efforts may fall short (Reid, Maag, Vasa, & Wright, 1994). Fabiano and Pelham (2003), postulate that difficulties in implementing interventions may due to the following:

1. Typical classroom interventions may be of little intensity to result in clinically meaningful improvement.

2. Many teachers have not received sufficient training in behavior modification program and may be using ineffective behavior mod programs or not know how to appropriately adjust them.

(Fabiano et al., 2003, p.123).

In their case study of a third grade student diagnosed with ADHD, Fabiano et al., (2003) reported on modifications to an existing behavior management plan with the assistance of a consultant. They found that determining the aspects of an ongoing behavioral program that were ineffective and adjusting the current classroom behavioral modification program in a systematic manner, improved the behavior intervention. These findings support the importance of evaluating and modifying of behavior treatment for ADHD in the classroom to increase effectiveness.

Lack of information about the true nature of ADHD may also contribute to ineffective classroom interventions. In their 2000 study, Sciutto, Terjesen, & Frank examined teacher's knowledge and misperceptions of ADHD. The researchers administered a knowledge assessment instrument on 149 elementary school teachers from 6 public schools in New York and found that teachers were knowledgeable of the general symptoms of ADHD, but were not as strong in understanding the specific nature, course and treatment of ADHD. In other words, teachers were able to recognize the " hallmark" symptoms such as fidgeting and distractibility, but were not as informed in respects to

situational variations (novel vs. familiar surroundings, or behavior in the presence of father vs. mother) (Sciutto et al., 2000). However, teachers with prior exposure to working with children with ADHD were found to be more knowledgeable about the disorder.

Understanding the basics of ADHD may not be all that useful for accurately identifying the disorder in children and even less useful for creating appropriate interventions. Sayal et al., (2006) note that recognition of the disorder alone is insufficient in addressing ADHD. They recommend that teachers not only need encouragement to identify students with ADHD, but also need support in developing skills to provide simple interventions.

While the use of assessment tools to identify ADHD is encouraged, there is caution against over-reliance on teacher rating scales (Harvey, Olson, McCormick, & Gates, 2005). Miller at al., (2009) note that higher symptom scores based on race seem to exist across most of the popular teacher rating scales for ADHD including: the Connor scale (1997), SNAP IV (Swanson, 1992), although not for the Child Behavior Checklist (Achenback, 1991). There are some indications that higher rating on these scales may be due to higher classroom behavior problems in African American males, and structured diagnostic interviews with clinical mental health counselors can alleviate theses biases (Miller et al., 2009). Although accurately diagnosing ADHD can be difficult, more comprehensive evaluations are available and can be enhanced by the efforts of multidisciplinary teams (August, Ostrander, & Bloomkist, 1992; Cotugno, 1993).

In order to assess for ADHD, teachers require essential supports for their practice. In a survey study of 119 elementary school teachers, Walter, Gouze, & Lim (2006)

assessed teachers' beliefs about the mental health needs in inner-city schools. The researchers found that teachers in the U.S. rated the implementation of behavior plans and ADHD as the most important topics for in-service education. Teachers in this study were specifically concerned with certain types of disruptive behaviors such as getting out of their seat, talking out of turn, arguing, and failing to comply with rules and requests. Although teachers sought varied sources to educate themselves about mental health issues few had received neither formal training nor consultation on the subject. Walter et al., (2006) concluded that teachers would benefit from education, training, and consultation from mental health professionals if they serve as effective gatekeepers to mental health services.

Along these same lines, Williams, Horwath, Wei, Van Dorn, and Jonson-Reid, (2007) conducted focus groups with elementary school teachers in two predominately African-American urban schools to explore teachers' perspectives of children's mental health needs. Williams et al., (2007) found that the referral process to mental health services for children was affected by teacher perception of parental motivation and involvement, and other characteristics indigenous to teachers, such as length of teacher experience being and important factor in the referral process. Other concerns expressed by teachers were regarding interpersonal and contextual barriers to mental health that parents experience. In addition to barriers in the community, teachers cited lack of resources, bureaucratic structure of schools and overall time constraints. William et al., (2007), highlight the role of the school social worker as particularly relevant in helping identify children with mental health needs, connecting them to services, and creating preventative frameworks in the schools they serve.

Teacher response to classroom misbehavior is often mediated by beliefs about themselves and perceived efficacy in dealing with misbehavior. Level of teacher concern, teacher confidence, and administrative support also play a role. These concerns may overwhelm teachers who practice in overcrowded classrooms, or perceive the size of their classrooms to be large, which may lead to a tendency of over-identifying children with ADHD (Harvey, Olson, McCormick, & Gates, 2005). Overcrowded classrooms are often the reality of inner city schools and regrettably, these teachers may spend less time working with students they perceive as having behavioral concerns. The dysfunctional connection between learning and behavior is then further perpetuated as aggressive and disruptive children tend to influence the behavior of the adults they encounter (Bell & Harper, 1977; Patterson, 1982) and this may in turn lead to the possibility that students may direct teachers towards a less demanding curriculum.

Wehby, Lane, & Falk (2003) noted that efforts in educational research and practice focus mainly on interventions and strategies aimed at addressing the emotional and behavioral issues that are disruptive in the classroom setting and impede learning. This conceptually presupposes that in order to achieve academic instruction, student behavior must be under control and, thus, becomes the first line of defense when addressing both academic and behavioral deficits (Wehby et al., 2003). To do so may overlook other characteristics related to ADHD such as learning styles, attention and organization (Jacobelli & Watson, 2008).

As the prevalence of children with ADHD continues to increase, it is important that teachers and school-employed mental health professionals become skilled at providing effective interventions (Evans, White, Sibley, & Barlow, 2007). School-based

programs focused on consultation with teachers can be effective approaches to enhancing mental health (Lowie, Lever, Ambrose, Tager, & Hill, 2003; Mckay, Atkins, Hawkins, Brown, & Lynn, 200) but are less commonly applied (Adelman & Taylor, 2003; Atkins, Frazier, Adil & Talbott, 2003; Hunter, 2003). Catron & Weiss, (1994) note that consultation with teachers is often limited and occurs at a lesser rate than individual contact with children. Consultation with teachers can also maximize opportunities to effect children's academic learning and classroom behavior; however, these types of program focus have not been significantly studied in high-poverty urban schools (Fantuzzo & Atkins, 1992; Ringeisen et al., 2003).

In addition, gaining understanding about the complexities and labor-intensive nature of interventions in school settings can be useful for consultants and collaborators in the provision of these services. Greater support for classroom management may need to focus on whether interventions should center on behaviors, focus and attention, learning needs, or all of the above. Further, consultants need to focus on assessing behavioral interventions, implementing and improving behavior modification plans, and determining when these are ineffective. Fabiano et al., (2003) stress the need to exhaust these strategies before embarking on more intensive and more costly treatments such as stimulant medication and special education services (Fabiano et al., 2003).

The supports teachers require to manage ADHD are extensive and go beyond basic recognition of the disorder and can fall into the realm of consultation and collaboration in the intervention process. Who then is to support the efforts of teachers when addressing children with ADHD in the classroom? If school social workers are to take this role-just as has been increasingly addressed with teachers- it is important to first

understand how knowledgeable they are about ADHD, and whether their school functions allow for collaboration and consultation with teachers.

CHAPTER III: THE ROLE OF THE SCHOOL SOCIAL WORKER

"As we explore new roles in the 21st century, we must revisit our mission as social workers and see the opportunities that exist for us to meet the human needs. For example, teachers are perhaps the most important and yet the greatest neglected of school personnel who could benefit from our services and help."

(Franklin, 2002, p. 130)

Across the U.S., school social workers are working in a variety of roles. These roles require them to involve implement ideas in their practice so that they may effect real systemic changes and support the varied needs of students at risk (Allen-Meares, 2004; Constable et al., 2002). Furthermore, with mandates like the NCLB and RTI that emphasize accountability and high standards, the public school system is forced to look critically at its own standards, and school social work must begin to do the same for their profession and role in schools (Sabatino, 2009). NCLB calls for "highly qualified professionals" and RTI requires that the same special education approach of assessment and regulation of interventions be applied to regular education students (NCLB, 2001; Sabatino, 2009). Professional preparation will be a key aspect for school social work intervention, but so will the accountability and responsibility of interventions towards academic success of students. The academic achievement of all students is quickly and compellingly becoming a focus for all educational personnel in today's educational climate (Sabatino, 2009). In par with other school-based mental health professionals, school social workers are expected to be prepared for meeting the needs of at-risk students (Altshuler & Webb, 2009). This includes children with ADHD. Understanding

the training needs of school social workers so that they can be prepared to address ADHD in their schools through holistic approaches that include collaborative efforts is imperative.

School Social Work Competencies

Although the number of individuals practicing school social work across the nations is remains unclear, the profession has begun to give more importance to the number of people practicing and the level of preparation they have to function effectively in the field. Utilizing numbers from the 2006 Data Accountability Center, Fisher (2010) at best estimated that there were 17,797 schools social workers providing related services to children and youth ages 3 to 21 under IDEA. The accuracy of the report remains questionable as the data only covers those school social workers in the U.S working with special education students. Fisher, (2010) speculates that although at least 95% of school social workers may be working with special education students there are many who do not hold responsibilities in this area. It is difficult to ascertain an accurate number of how many school social workers are currently practicing because although 60% of state departments of education certify or license school social workers, as not all of them produce an annual census of school social workers Fisher (2010). In addition, the 40 % percent that do not provide certification or licensing cannot account for their numbers at all (Fisher, 2010). In spite of the fuzzy data available, the 2010-11 edition of the Occupational Outlook Handbook (Bureau of Labor statistic U.S. Department of Labor, 2009) speaks of 12th percent growth for the school social work profession. Fisher (2010) attributes this number to the need for social workers in schools setting in light of fiscal

crisis that translates to higher classroom size, and less supportive and related services.

Insufficient data, inability to account for the number of school social workers in practice and not having a clear picture of the types of functions they fulfill may contribute to the inconsistencies in what defines a “highly qualified” school social work professional. If it is understood that school social workers come from a variety of educational backgrounds and fulfill multiple functions in the school milieu, it is essential that we understand how social workers may be prepared to provide services and the types of schools where they work. Where social workers practice, and what challenges they are met with can direct the types of programs and trainings they require and receive. A review of how school social workers develop their knowledge base is important.

Ashtuler and Webb, (2009) noting the challenges faced by school social workers in having to legitimize their presence as school professionals as compared to school psychologists and guidance counselors, reviewed the certification requirements and standards set by 50 states for all three professions. They found that overall both school psychologists and guidance counselors had more clearly defined roles, expectations, and educational requirements for state level certification than did the school social workers. Additionally, 18 states were found to have no defined state certification requirements for school social workers, 20 states required at least a BSW degree, and one (New York) only required a B.A in any area of study. Findings maintained that school social work was less well defined or prescribed than school counseling or school psychology. Because school social workers fill multiple roles in school settings, Ashtuler and Webb, (2009) underscore that consistent certification standards and professional preparation for school social workers are needed so that the profession can be prepared to hold its own in

the school-based mental health realm, and be equipped for the complex tasks of working with children, and families.

However unclear the standards of competencies may be, the discussion about recommended and expected practice standards has begun. Ashtuler and Webb (2009) further reviewed the recommendations of NASW and the School Social Work Association of America (SSWAA) for school social work professional preparation and competency. These included, among others, the following requirements: the school social work professional must know how to assess the presence of a disability accurately; be competent in practice evaluation techniques, and know how to interpret assessment data; know how to provide micro- and meso-level interventions that meet best practice standards; and know how to remove barriers to learning for students facing temporary crises or long-standing educational, emotional, mental health, or behavioral difficulties (NASW, 2008; SSWAA, 2005).

Requirements alone, however, do not prepare the school social worker for providing effective practices. For those school social workers with graduate level degrees, preparation is obtained through MSW programs. A review of the graduate training literature found two articles that spoke to the level of preparation for school social worker's in graduate school. The first, by Slovak, Joseph, and Broussards (2006) looked at school social workers perceptions of graduate education preparation. The researchers note that specific school social worker training has not always been available, however, the recent growth in state associations for school social workers and the state credentialing has influenced current education, licensing and certification requirements for school social workers. The authors further postulate that although there is specific

education for school social worker available, it should not imply that there is enhanced training to deal with contemporary issues.

Slovak et al., (2009), constructed a survey containing sections related to demographic, employment information, and completion of specific school social work program. They further assessed for social work experiences and opinions in regard to specific issues: tracking, violence and sexual behavior in their schools-based on two other studies that examined the topics. 1400 surveys were mailed to NASW school social workers with a 31% completion and response rate (299 respondents). While results yielded low response rate, Slovak et al., postulate that findings highlights the importance of specific school social work preparation. Respondents who completed specific school social work program perceived themselves as better prepared in areas related to employments in school settings then those who did not complete such a program in graduate school.

A key point summarized by Slovak et al., (2007) relating to IDEA is that while the inception of this mandate expanded the role of school social workers to one of advocacy for disadvantaged students and their families on multiple levels (Altshuler & Kopel 2003), the development of NCLB created uncertainty and unclear paths for the role of the social worker in academic measures. The researchers conclude that as the education system is a continuously evolving institution, the school social worker must continue to be prepared for practice in this environment. Having specific training around prevalent issues would no doubt help social workers feel better prepared to do their work, but it remains unclear what level of knowledge school social workers at all education levels have, and much less clear what they know about ADHD.

A second article speaking to graduate level education for school social workers is a review of the three major school social work textbooks. Stone, & Gambrill, (2007) following the process of reviewing for evidence-based strategies in medical textbooks that ultimately contained errors and outdated information, reviewed school social work textbooks in the same manner. The review revealed interesting data relating to ADHD in the literature. All three textbooks devoted to school social work- Allen-Meares, (2004), Constable, McDonald, and Flynn, (2002), and Dupper, (2003) - referenced ADHD, but substantial research around the disorder was not reflected in the text. Just as medical textbooks contained problems with out of date information, school social work textbooks met a similar fate. In general, none of the three texts had the most current and comprehensive references available regarding psychopharmacological and psychological treatments of ADHD. Stone and Gambrill, (2002) found varied and selective treatment of disruptive behavior disorders within the text. However, little limitations were cited regarding: reduction of undesired behavior, differential use of services by minorities, and problematic effects when children with disruptive behaviors are treated together in groups. The texts contained frequent use of terms such as "proven", which conveys unwarranted certainty for some methodological studies cited. Stone and Gambrill, (2007) critiqued the texts for having inflated claims of effectiveness, omission of key research literature, uncritical documentation, claims of effectiveness with no description of related results, and methodology that allowed readers to judge the contributions of a particular study. Further, the texts provided no warning that the content included may not be sufficient to master skills and knowledge required to offer services described. This was of particular concern to the authors as they assert that "students and practitioners need

accurate information regarding the evidentiary status of interventions related to certain hoped- for outcomes and to honor ethical obligations to clients to integrate research and practice" (Stone and Gambrill, 2007, p.115).

Stone and Gambrill (2007) conclude with concerns about the absence of controversial discussion in the text literature which include the following questions: 1. Does the inclusion of school social workers in schools encourage medicalization of student problems; 2. Do school social workers have the skills they need to address the problems they face and if they do know what should they do, and finally; 3. How should school social workers respond to incompetent teachers or teaching practice?

In light of the data on certification and licensing, and graduate school training, school social work competencies and preparation to meet student needs in the current school climate appear to be unconvincing at best. While the literature does speak to school social worker's role in relation to ADHD as invaluable collaborators, it is difficult to speak adequately about school social worker's ability to address the needs of students with ADHD and help teachers in the management of these students in the classroom.

School Social Workers and ADHD

There isn't extensive research-base literature on school social work and ADHD. Most of the literature is conceptual and what it does speak to is the assertion that school social workers are essential in addressing the behavioral issues of children, and that school-based mental health models which include this unique role of school social workers who practice with an ecological approach are vital. Limited articles on school social work and ADHD address the role of school social workers as key providers of interventions for children with behavioral disorders (Brener, Weist, Adelman, Taylor, &

Vernon-Smiley, 2006; Clancy, 1996; Frey & Nichols, 2003;Garret, 2006; Gibleman, 1993; Lynn, McKay, & Atkins, 2003; Mckay, Stoewe, McCadam, & Gonzales, 1998). The literature maintains that the school social worker has an opportunity to be a key service provider who reaches a general student population, and address not just individuals, but involve an interplay between wider and broader systems that affect the social ecology of the school community (student, family, classrooms, community, and political and economical systems) (Adelman, Barker & Perry, 1993; Clancy, 1995; Frey & George-Nichols, 2003; Lynn, Mckay & Atkins, 2003). The ecologically focused school social worker is seen as someone who can work at the micro, meso, and macro levels to assists in the interchange of all systems there is the effectively work at all levels and negotiate interactions between each to ultimately meet the needs of children in schools (Clancy, 1995; Lynn, et al., 2003). What is not extensively clear is how and when school social workers are able to function in this manner.

When the school social work role has been observed in relation to work with general disruptive behavior, some evidence of effectiveness is present. Frey and George-Nichols (2003) reinforce the importance of the school social work role. The authors conducted a meta-analysis of intervention research for work with children with emotional and behavioral disorders (EBD) in order to inform best practices and the role of school social workers in effective service delivery. Frey and George-Nichols (2003) reviewed 20 articles that evaluated interventions for children with EBD that were published in professional journals from 1993-1999.The researchers note that implementing best practices requires a broad-based team approach involving general and special educators, along with school administrators. According to Frey and George-Nichols (2003) school

social workers trained in ecological systems make unique contributions to interventions and to the teams. Furthermore, they propose that effective school social work practice should focus beyond individual or group practice, but also on implementing system changes by collaborating, consulting, developing and training others to work with children dealing with EBD (Frey & George-Nichols, 2003). A criticism that is furthered by both Garett (2006) and Foren (2002), who maintain that school social work literature focuses on individual change efforts even though they strive for systemic change. As such, looking at other avenues of intervention that go beyond individual levels of intervention is relevant to school social work practice.

CHAPTER IV: INTER-DISCIPLINARY COLLABORATION, SCHOOL SOCIAL WORK, AND ADHD

Collaboration has been generally accepted as a critical practice for schools because it serves to promote effective mental health services while avoiding competition for scarce resources, fragmentation of services, and needless duplication of service delivery (Rappaport, Osher, Garrison, Anderson-Ketchmark & Dwyer, 2003 in Weist, Evans & Lever, 2003). Collaboration, additionally serves to prevent professional isolation and ensure comprehensive, cost effective, and accessible services by involving all stakeholders. At the same time, SBMH trends have increasingly centered on offering support for teachers and capacity building through collaborative practices (Atkins, Frazier, Adil, & Talbott, in Weist, Evans, & Lever, 2003). Although the collaboration research continues to grow gaps still remain. The literature has produced limited anecdotal data, program description, and outcome data in the school social work literature.

Furthermore, the research has yet to focus on the explicit role of school social workers in addressing ADHD through collaboration and the outcomes of this process. There is however, some support of the role of school social workers in addressing ADHD based on the assumption that those who practice in the field are knowledgeable. Mueller (1993) reviews findings related to attention-deficit hyperactivity disorder and identifies ways school social workers can effectively intervene with diagnosed children and their families. Mueller (1993) suggests that the school social workers can have a significant impact on children with ADHD by collaborating with teachers. For teachers to feel encouraged in identifying children with ADHD they may also be supported in developing

skills to provide simple behavioral interventions. Identification of students with ADHD can be a complex process as many of the primary symptoms overlap with other childhood behavior disorders. Muller (1993) recognizes that school social workers can help teachers work through much of the frustrations that emerges from working with challenging students and help them develop new behavioral plans or adjust plans that are not effective. Mueller (1993) concludes that school social workers can also assist teachers in recognizing triggers of misbehaviors related to ADHD so that they can positively and proactively intervene before they occur.

Similarly, Lynn, McKay, and Atkins (2003) place emphasis on the ecological approach to school social work and school-based mental health approaches. Lynn's et al. (2003) describe a model of school-based mental health services drawing from an ecological-mediational model where collaboration with teachers is the focal mechanism for change at the school level, in the classroom, and for individual teachers. They maintain that interaction and collaboration between the school social worker and teachers is essential to professional practice. Interventions here should focus on promoting school-wide climate change, classroom interventions, and early intervention work with the child and family. Lynn et al., (2003) state that collaboration with teachers and school staff is critical for the development of school-based mental health models and the school social worker provides an important role in the process. School social workers that take time to understand the expertise of teachers can have an impact on level clarity that exists about their respective roles when intervening with children (Lynn et al., 2003).

Both Mueller (1993) and Lynn et al., (2003) support the role of the school social worker, and see this role as instrumental beyond their direct practice with children, but

rather as a consultative and collaborative role with teachers. While they identify that school social workers are poised to be supportive to teachers, and identify the areas where they can be supportive, their recommendations end there. Mueller (1993), and Lynn et al., (2003) do not delve into the research that assesses school social worker knowledge and preparation to be able to do so, nor do they delineate how collaboration works. As schools increasingly suffer from limited resources, school social workers roles fluctuate within their school settings. As such the, expectation to, and the ability to collaborate may not be there. Furthermore, school social workers may not see this as part of their role and function, and they may not fully understand how the skills collaboration with teachers works.

School Social Work ADHD and Collaboration Literature

Outcome related studies in collaboration are few but do exist. Kransdorf, Doster, and Alvarez (2002) attempt to examine collaboration practices between teachers and social workers. Kransdorf et al., (2002) examined the collaboration and interaction between pre-service teachers and school social work interns in joint seminars and field based activities in four urban elementary schools. The purpose was to enable meaningful practice, and to that end the program was structured with informal and formal opportunities for 3 education supervisors, a social work supervisor, 22 education students, and 12 social work interns to solve problems and challenges unique to urban schools. This group was given the opportunity to convene during monthly seminars in order to identify needs for their classrooms where they agreed to work on together. Data was collected through a number of sources. Project participant completed questionnaires,

extensive \field notes take by supervisors during the seminars, as well as required journal entries from the social work interns were analyzed. This study sought to develop targeted skills of interactions with staff members, parents, students, and community members through the facilitated interactions. It was revealed that students perceived the process of collaboration as positive and as one that provided a larger support system.

Some challenges in collaboration efforts were reported by participants, which included difficulty setting meeting times for the group. Despite these barriers, students reported getting a sense of each other's discipline's experiences when working with children on a daily basis. The researchers concluded that collaboration offered teachers insight into school social worker's responsibilities, helped them consider the child within a holistic framework, increased their knowledge of the referral process for special needs children, and reduced the sensation of working in isolation. Conversely, through collaboration with teachers, school social workers become more aware of what it is like to work with large groups of children in contrast to the small group work that is more common to the field of social work. Kransdorf et al., (2002) recommend that future research on collaboration should explore issues of burnout, improved ease or comfort in collaboration or other team efforts.

Similarly, Viggiani, Reid, and Bailey-Dempsey (2002) explored a model of social worker-teacher collaboration for intervention with at-risk elementary school children (SWTCC) in one school located in Albany, New York. The SWTCC model consisted of a social work intern and a teacher in the same classroom working in collaboration to improve attendance, classroom behavior, and grades. The model was evaluated through a quasi-experimental design in which two classrooms receiving intervention were

compared with two classrooms that did not receive the intervention of having a social worker and teacher working together. The intervention team implemented a prescribed task-centered approach to addressing student concerns in the classroom in which each team member had a number of tasks. The social workers were responsible for addressing behavioral and attendance issues, while the teachers were responsible for academic concerns. The teams were also provided with a guided protocol for weekly meetings related to student concerns. Report card data that included behavioral information such as following rules, conduct and effort related to particular subjects, were collected. Both an attendance and parent involvement count was tracked during pre and post intervention, as well as an analysis of a social worker and teacher participant questionnaire assessing their perceptions of collaboration. Additionally, subject grades, and student and parent questionnaires about their perception of the model were also analyzed. While the generalizability of the study was limited due to its sample size and reliance on teacher-recorded data (report cards) which carry inherent biases due to subjective interpretations there were some interesting implications. Findings indicated that the intervention classrooms had improved attendance and behavioral variables, although there were no significant changes in grades. Further, results showed that students, teachers and social work interns benefited from the collaboration and felt more positive about the interventions implemented. Finally, parent participation also increased for the intervention classrooms. Social work participants reported gaining insight into the demands and challenges teachers faced in their classrooms. Conversely, the researchers highlight that teachers can benefit from added support to individual students and most importantly, that students could benefit from immediate social work interventions.

The studies conducted by Kansdorf et al., (2002) and Viggiani et al., (2002) offer important insight into the potential of collaboration between social workers and teachers, however because the studies were based on social work intern involvement rather than on-staff school social workers, and their methodology offered limited generalizability it is difficult extend these findings to understand the actual collaborative process of school social workers face day to day. On-staff experience may be met with challenges that are structurally inherent to the school, and are affected by time constraints.

Models of Inter-disciplinary Collaboration

A number of factors help to underscore the importance of collaboration. First, the focus on reducing the academic achievement gap that is currently dominating the national educational discourse and the developing pressure to improve academic outcomes have sent schools on a broadened search for resources that can significantly move the needle in this area (Ravitch, 2011). The increasing number of students with disruptive behaviors in schools and the relationship to academic performance have also added to schools' search for new interventions and strategies. Amidst the limited resources, schools have taken an "all hands on deck" approach which has led to a deeper look at collaborative practices. School-based mental health models promote it, and mandates require it (Brener et al, 2006; NLCB, 2001). The social work field also recognizes the value of collaboration. NASW's Standards for School Social Work Services (NASW, 2002) instruct school social workers to include collaborative efforts in their practice.

> "As leaders and members of interdisciplinary teams and coalitions, school social workers shall work collaboratively to mobilize the resources of local

> education agencies and communities to meet the needs of students and families. As team leaders and members, school social workers initiate and support activities to overcome institutional barriers and gaps in services. School social workers must demonstrate trust, open communication, mutual respect, ongoing collaboration, and effective coordination to facilitate the achievement of the interdisciplinary team objectives. The unique contribution of the school social worker to the interdisciplinary team is to bring home, school, and community perspectives to the interdisciplinary process."
>
> (NASW, 2002)

The need to define, delineate, and identify the goals of collaboration the process in schools is evident in the literature. Rappaport et al., (2003) purport that collaboration practices in schools should aim to enhance both student adjustment and academic performance. To successfully instill collaborative practices in schools, engagement in the following four areas must occur:

> (1) Define mutually agreed upon goals that provide incentive for the investment of effort in the collaborative process. (2) Decide on an overall strategy that integrates services and accept shared responsibilities for designated activities (3) Create working environment that fosters accountability for actions and outcomes(4) Where possible, shift from separate funding sources to support collaborative strategies.
>
> (Rappaport et al., in Weist et al., 2003 p.108)

Additionally, the capacity to appreciate and build on the competencies of the individual disciplines involved, are highlighted as critical components of successful interdisciplinary collaboration. This entails bringing together the unique perspectives, responsibilities, and clinical interventions relevant to each field of discipline so that comprehensive strategies can be created (Rappaport et al., 2003).

Bronstein (2003) speaks more pointedly about the role of school social workers in her description of collaborative practice. As trends in social problems and professional practice continue to shift, collaboration between disciplines is required more than ever so as to serve clients' needs effectively. This is of particularly importance for school social

workers and educators as children are increasingly coming to school with a plethora of psychosocial issues that are challenging for school staff to manage and address in isolation. In her interdisciplinary collaboration model, Bronstein (2009) defines the process as:

> "Interdisciplinary collaboration is an effective interpersonal process that facilitate achievement of goals that cannot be reached when individual professionals act on their own. This definition reflects the way interdisciplinary collaboration is written about and increasingly referred to when compared with other closely related interpersonal processes such as cooperation, communication, coordination, and partnership"
> (Bronstein, 2003, p. 299)

other general components of interdisciplinary collaboration identified as essential for the process to take place between school social workers and other professionals:

> "Inter-professional processes among one or more professional from different disciplines should represent five core components: (1) interdependence, (2) newly created professional activities, (3) flexibility, (4) collective ownership of goals, and (5) reflection on process."
> (Bronstein, 2003, p. 299)

Bronstein further provides a relevant example of high level collaboration in an elementary school. Collaboration is one "which may take place when a school social worker accommodates a parent's request for help with their children's homework and the social worker elicits teacher's input for how to structure a homework club to maximize participation and results" (Bronstein, 2003, p. 304).

Mellin (2009) builds on this previous work in interdisciplinary collaboration by constructing a conceptual model that includes a continuum of practice. This continuum of practice within interdisciplinary collaboration distinguishes it from the other multi-disciplinary and trans-disciplinary collaboration types:

> "At one end of the continuum is multidisciplinary collaboration, which refers to the parallel practice of professionals from different disciplines on

> a common project, and, the other end of the continuum can be represented by transdisciplinary collaboration. This type of collaboration involves active exchange of disciplinary-specific competencies for the purpose of blurring traditional professional boundaries. Interdisciplinary collaboration, which may sit in the middle of the continuum, can be distinguished by integration of the knowledge and expertise of the professionals to reach a common goal through shared decision making and practice."
>
> (Mellin, 2009 p.5).

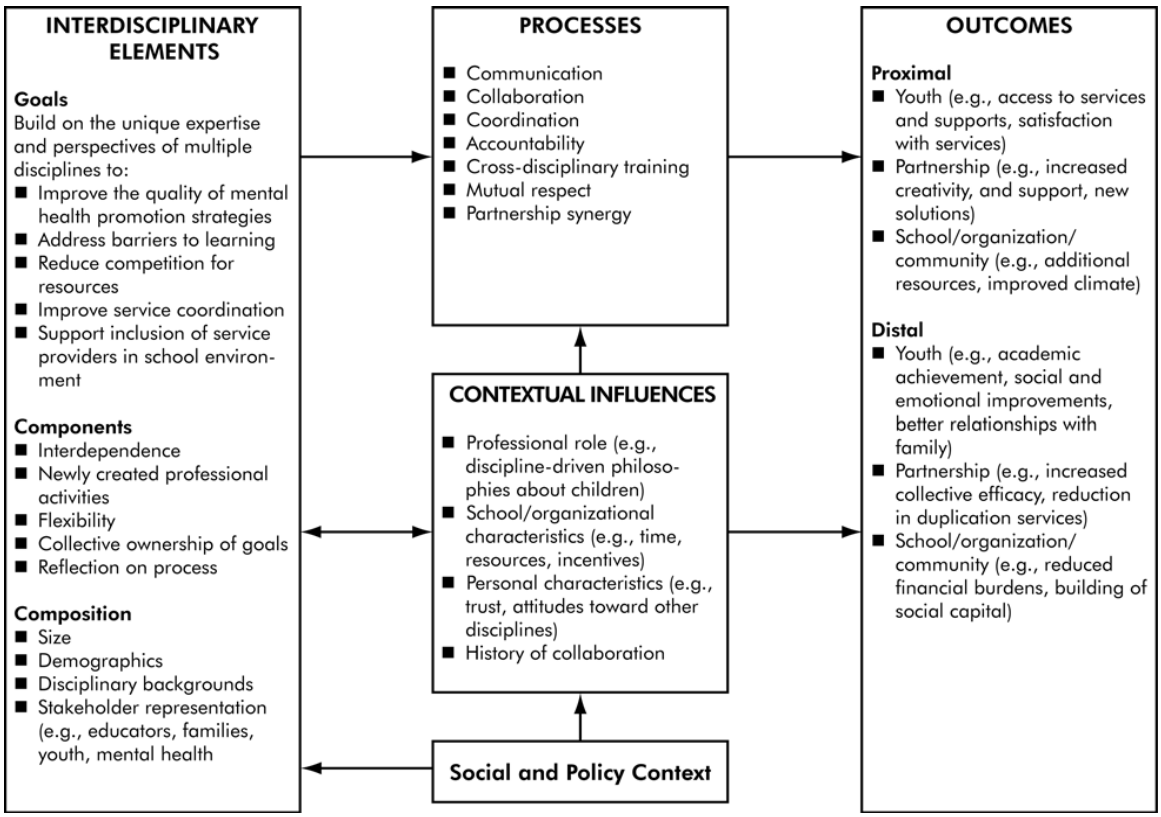
While Mellin's (2009) model covers a range of collaborations that occur both with external school partners, and those that occur within the school setting between school personnel, unpacking of the collaborative process that occurs in the latter offers a crucial framework for collaboration research. As previously stated, there is little research available that examines how interdisciplinary collaboration affects outcomes, thus understanding the concepts within this process can help organize a blueprint for research endeavors (Mellin, 2009). In this model, the goals of collaboration are clarified such that it gives directionality to the practice of collaboration. Mellin (2009) identifies the following processes as necessary for achieving the goals of collaboration: communication, collaboration, coordination, accountability, cross-disciplinary training, mutual respect, and partnership synergy (Mellin, 2009). Consequently, the assessment of these processes become essential in understanding the effectiveness of collaboration in meeting intended goals.

As with Bronstein's work (2003), this model accounts for varying contextual influences (professional role, school/organizational characteristics, personal characteristics such as trust and attitudes towards others, and history of collaboration) that can similarly influence the effectiveness of interdisciplinary collaboration. More specifically, the model concerns itself with processes related to role expectations, and

discipline driven differences in addressing academic and mental health concerns of children.

Structural characteristics may also contribute to the functionality of interdisciplinary collaboration. Some of these characteristics include organizational support such as philosophical views, time concerns, and availability and implementation of resources (Bronstein, 2003; Mellin, 2009). Finally, contextual influences are also manifested through personal characteristics such as trust and attitudes towards other disciplines, and previous history of collaboration between staff. Mellin's (2009) model is displayed in Figure 1.

Figure 1.



Before embarking on how collaboration affects outcomes in urban school settings,

it is important to assess whether collaboration is happening in the first place. Mellin (2009) sets up a framework to help understand instances of collaboration in addressing ADHD in schools. Teachers and school social workers may or may not be aware of the requirement to collaborate, and consequently, what collaboration should look like when addressing students with ADHD and other related attention and disruptive behavioral concerns. Understanding the components, processes and contextual influences that affect collaboration can help shed light on how these ultimately affect student outcomes.

A Word about Consultation

Although not explicitly discussed in Bronstein's (2003) and Mellin's (2009) work on collaboration, consultation is often a source of collaborative interaction discussed in the literature. Consultation, one could argue, may be discussed as a process often seen as a support for teachers that includes indirect methods of intervention:

> "Consultation is an indirect method of intervention that assists others in becoming more effective in dealing with complex work problems related to psychological, social, cultural, organizational and physical issues. Consultation methods may be used to enhance conditions for optimal well-being in the general population, address chronic conditions, or focus on specific acute distress. The role of consultant is broadly defined as that of an expert or technical adviser who introduces new information, concepts, perspectives, values, and skills to help service delivery systems achieve their mission and goals."
>
> (Sabatino, 2009 p. 198)

Sabatino (2009) provides an advance consultation organizer that connects the varied types of school social work consultation models, RTI levels, and schools social work practice. As the mandates of RTI begin to be applied more consistently in schools, Sabatino (2009) draws a link between school social work interventions already taking place and their consistency with the RTI paradigm. According to Sabatino (2009), school social workers practice at the organizational (school-wide) level, improve program

services and transmit knowledge through education and training, mental health education, behavioral plans, clinical assessments and interventions. The goals of these approaches are to increase teacher competencies with at-risk students along numerous psychosocial dimensions, improve teaching-learning climate, and implement positive behavioral supports.

Exploring Collaboration to Address ADHD

At the time of this writing very limited outcome studies on interdisciplinary collaboration in school mental health exist. Even less evident are studies providing an examination of the extent to which collaboration takes place in schools. The utilization of models of collaboration can further add focus to the exploration of collaborative practices. Mellin (2009) provides such a model.

As the primary goal of the education system is to educate children, there is an ever increasing national focus on ensuring academic achievement and one that has created a push for proficiency standards for the adults who teach them. Teachers are expected to teach children in spite of the many challenges affecting them, challenges that are exacerbated in high poverty urban school settings. When these challenges appear in the form of ADHD and its impact on children's learning, teachers require significant support. Teachers may have a basic understanding for identification of the disorder, but require assistance in developing and monitoring appropriate interventions. As resident school mental health personnel, school social workers have the potential to be supportive to both the children affected by ADHD and the adults who teach them. While school social workers may offer a number of supports for students, current practice standards and resource demands require the profession to move towards more collaborative

practices. As such, it becomes important to clarify professional preparation and competencies, and how these are embedded in collaborative work. Doing so is critical to legitimizing the school social work role and enables the profession to meet the standards set by current mandates in education, be on par with standardization of certification and validation of other school-based mental health providers, and to ultimately provide quality services to students.

In order to meet these numerous expectations we must first understand what school social workers know about the disorder and whether their roles enable the inter-disciplinary collaborative efforts with teachers. A study is proposed next which specifically aims to ascertain school social worker's knowledge of ADHD and their use of this knowledge in understanding and supporting teachers in the classroom management with this disorder through collaboration.

CHAPTER V: METHODS

Design

The current study is a cross-sectional mixed-methods survey research design. It explores the relationship between within group variables of urban elementary school social workers and their knowledge of ADHD. These variables include; years of experience as a social worker; years of experience as a school social worker; educational degree status; licensure/certification status; service to general education or special education; and parental status of child(ren) with ADHD. The ADHD Attitudes and Beliefs Scale (Johnston and Freeman, 2002) was utilized to measure the ADHD knowledge of urban school social workers. It was hypothesized that the predictive variables would correlate with level of knowledge about ADHD.

In addition to assessing their knowledge of ADHD among urban school social workers, this study further explored more specific understanding of how ADHD manifest in the classroom, including knowledge of classroom interventions related to ADHD, and the application of this knowledge within school settings through collaboration. Guided by the work of Mellin (2009) on a conceptual model of inter-disciplinary collaboration in Expanded School Mental Health, an exploration of the components, processes, and contextual influences involved in the interdisciplinary collaboration practices between school social workers and teachers around ADHD issues in urban school settings was pursued. For this purpose a qualitative survey titled The ADHD Management and Collaboration Survey was created.

A mixed-methods design was employed to enable deeper understanding about the unique experiences of participants within urban school settings, and to help further illustrate quantitative findings. This triangulated approach is strongly supported in the

research literature. Bronstein, (2002) and Mellin, (2009), recommend the use of both qualitative and quantitative methodology to better capturing the concepts and dimensions that take place in inter-disciplinary collaboration.

Sample

The sample in this study was a convenience sample. The researcher recruited school social workers from a sampling pool of online social work affiliations, professional online list-serves, and school social worker online social networks. In addition participants were recruited through professional contacts utilizing a snowball approach. The sample included all respondents who met criteria as elementary school social workers and were functioning under that title. Participants excluded were those who did not identify themselves as current school social workers, those who serviced middle school and high school populations, and those who identified their school setting as rural. Suburban elementary school social workers were included for instances of comparison with urban school social workers.

Measures

The ADHD Belief and Attitude Scale (Johnston and Freeman, 2002) is a published Likert scale designed to assess beliefs about the etiology and treatment of ADHD and consists of 24 items. A likert questionnaire structure is noted for offering the advantage of improved validity and improved reliability over that of standard "True or False" questionnaires (Monette, Sullivan, & Dejong, 2008). In light of the scarcity of ADHD knowledge assessment scales, Johnston and Freeman (2002) developed The ADHD Belief and Attitudes Scale for use in their study which assessed the beliefs about ADHD of 115 parent participants. This brief measure requires participants to read 24

statements referring to ADHD and respond to their accuracy. The response range for the scale is between 1 and 7 for each item, with a score of 4 being equal to "neutral." A score lower than 4 is considered "Disagree," and a score higher than 4 is considered "Agree." The scale covers two domains-the probable causes for ADHD and the appropriate treatment options for children with ADHD. Johnston and Freeman conducted a factor analysis based on a sample of approximately 250 mothers and fathers in 2006 revealing four subscales: Beliefs in Behavior Management, Beliefs in Medication, Beliefs in Psychological Causes/ Treatments, and Beliefs in Diet/Vitamin Treatment. Although, this data is not published, this study was guided by the more up to date information on the measure provided by the authors of the scale. A factor analysis revealed the need for reverse coding for item 18 and four factors to be omitted for not loading above .30 (Items 5, 12, 14 and 19).

Johnston and Freeman (2002) constructed the items on the ADHD Beliefs and Attitude Scale to reflect both empirically supported and unproven, but popular ideas about its causes and its treatment. Items reflect biological and psychological causes and treatments. Other studies utilizing this scale include Weyandt et al., (2009), who administered the scale to assess differences in ADHD knowledge base between teacher and school psychologists.

Because this scale was originally intended for use with parent participants, wording in items 17, 18, 23, and 24 were adjusted for use in this study. For example, in item 17, "Improving parenting skills would benefit my child with ADHD", the word "my" was replaced with the word "a". In Item 18, the same replacement of words took place. For item 23, "I would not hesitate to medicate my child if a doctor recommended

it", the words "support medication" were replaced with "medicate" and the words "my child", were replaced with "for a child". Finally, for item 24, "I would be reluctant to learn specialized parenting techniques to treat my child's ADHD.", the word "learns" was replaced with "teach" and "my child" were replaced with "a child's". All the items were renumbered to reflect the omission of items, 5, 12, 14, and 19.

Although the sample size in this study was somewhat smaller than what is generally considered for factor analysis, the lack of reliability and validity for the measure and some changes to the wording of the items influenced the decision to run a factor analysis for this study. A check on the Kaiser Meyer Olkin of sampling adequacy (KMO) was conducted revealing a value of .585. KMO values of .05 are seen as adequate for factor analysis of the variables (Field, 2009). A first factor analysis of the scale running a varimax rotation, revealed 8 factors with eigenvalues greater than 1. Factors with eigenvalues greater than 1 are considered statistically significant and therefore retained (Cattell, 1966). In this analysis eight factors had eigenvalues greater than 1, however, the point of inflection for the slope occurs after the fourth factor as depicted by the scree plot in Figure 2. First Factor Analysis Using Rotated Varimax Scree Plot. A second rotated varimax factor analysis with the four factors revealed a similar KMO value of .585 and a similar scree plot inflection after the fourth factor (Figure 3). The eigenvalues were higher for the first four factors.

Figure2. First Factor Analysis Using Rotated Varimax Scree Plot.

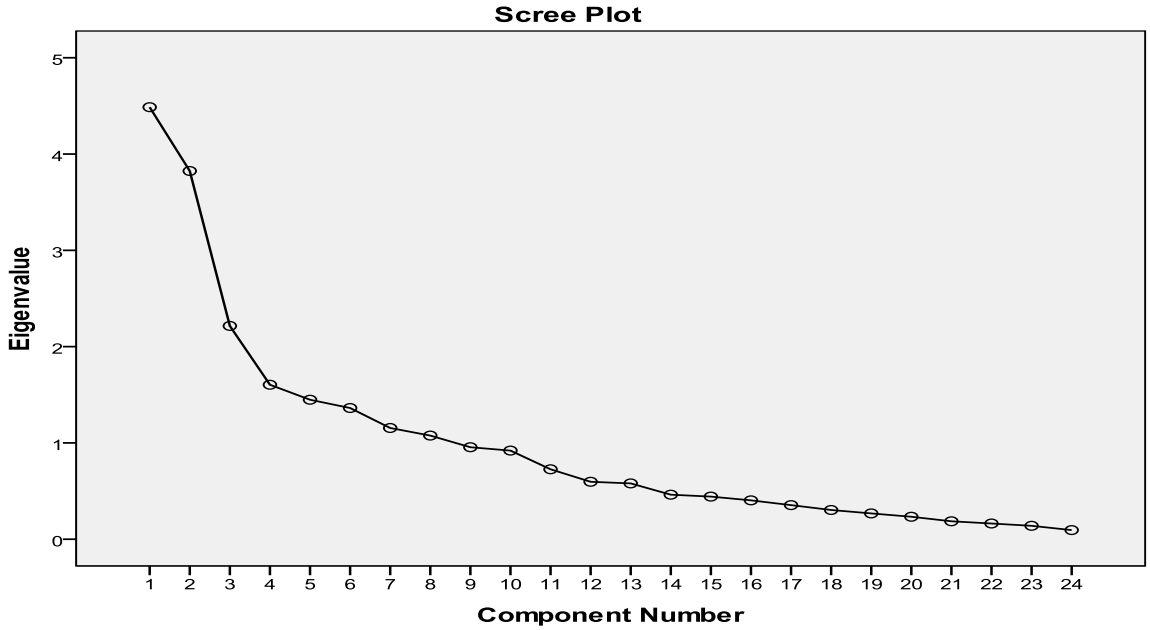


Figure 3. Second Factor Analysis Scree Plot

Four factor scales were also revealed after the second factor analysis: Beliefs in Behavior Management, Beliefs in Medication, Family Impact, Special Diets similar to the factors that emerged for Johnston and Freeman (2006). Items that loaded above .30 were retained within their factor loadings and are depicted in SPSS Output 1. However, some items were located within other factors that had more logical relationships. Internal consistency for the four factors were found to be adequate with Cronbach's alpha = .71, .76, .75, .75. The subscales and items are listed in Table 1, along with their factor loading. The subscales provide a disaggregated view of the different areas of knowledge regarding ADHD. By measuring the knowledge of school social workers' across the four areas related to ADHD understanding, more specific insight as to what areas of ADHD knowledge are deficient or in contrast, adequate can emerge.

Table 1. SPSS Output Rotated Component Matrix.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
Medication	.307	-.478		.384
special_diets	.361	.618		
Neurology				.697
parenting_techniques	.804			
behavior_management	.692			
medication_behavior_mgmt	.588	-.499		
Training_parents	.799			
medication_neurotransmitte				.693
Structure	.425			.389
medication_always_effectiv		-.392		.549
parent_inconsistent			.722	
adhd_allergies		.587		
attention_seeking			.697	
parenting_skills	.457			
media_and_medication				-.478
family_problems	.471		.551	
child_behavior_control		.312	.724	
adhd_and_sugar	.328	.598		
adhd_and_vitamins		.715		
recommend_medication		-.635		.321
teachspec_parenting_skills		.310		
social_skills_training	.554			
clear_rules	.582			
adhd_poor_discipline			.759	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table 2. ADHD Scale based on 67 Elementary School Social Workers

Scale 1: Beliefs in Behavior Management
Special parenting techniques (.80)
Behavior management effective (.69)
Training parents in beh. Mgmt.(.80)
Structure in environment (.43)
Improving Parenting skills (.46)
Social skills training (.55)
Clear, consistent rules (.58)
Medication and behavior Management (.59)

Scale 2: Beliefs in Medication
Meds are safe (38)
Neurological function (.70)
Medication alter neurotransmitters (.69)
Medication almost always effective (.55)
Media reports make me uneasy (-48) reverse coded
Would recommend medication (.32)

Scale 3:Family Impact
Parents inconsistent with rules (.72)
Child is attention seeking (.70)
Family alcohol problem (.55)
Child can control behavior (.72)
Poor discipline (.76)

Scale 4. Beliefs in Diets/Vitamins
Special Diets are helpful (.62)
ADHD is allergic reaction (.59)
Limiting sugar (.60)
Vitamins are helpful (.72)

In addition to The ADHD Belief and Attitude Scale (Johnston and Freeman, 2002), The ADHD Management and Collaboration Survey was administered. This survey specifically created for this study contained semi-structured questions intended to elicit responses about the identification of ADHD symptoms manifested in the classroom, and about knowledge of classroom interventions related to ADHD. The survey further explored phenomenon related to collaboration components and processes with teachers, and existing contextual influences within school settings based on Mellin's (2009) model of interdisciplinary collaboration in expanded school mental health. Items for The ADHD Management and Collaboration Survey are listed in Appendix C. Additional

demographic data was collected through a Demographic Questionnaire in order to gather school social worker information about level of education, licensing status, and population serviced. In addition, demographic data was used for selection criteria.

The three surveys were administered as a whole survey in its entirety. It was pilot tested with 6 school social work consultants working with school social workers in New York City public schools, prior to the inclusion in this study. The survey was administered to this group in order to maintain the limited access of school social workers. Items in the ADHD Management and Collaboration questionnaire were either reframed or eliminated upon feedback prior to its use with the participants in this sample. The completion of all sections took approximately15 minutes per respondent.

Procedure

The ADHD Belief and Attitudes Scale, the ADHD Management and Collaboration Survey, and the demographic questionnaire were administered through the use of an online survey tool REDCap, a database software created at Vanderbilt University supported by NCRR/NIH (1ULIRR624975 NCRR/NIH). REDCap is a type of computer-mediated communication (CMC) and was selected for many advantages (Mann & Stewart, 2004). Completion of online surveys reduces costs, time limitations, travel, and scheduling issues. Online surveys have the advantage of speed, low cost, and the ability to reach respondent all over and offer a quick return (Mann & Stewart, 2004; Monette, Sullivan, & Dejong, 2008). In addition, the use of CMC can reduce interviewer bias that would otherwise be present during in-person interviews, and can reduce misinterpretations and mis-recordings as participants' type in their own responses Monette, Sullivan, & Dejong (2008). Interviewer characteristic can often affect the

participant's responses and conversely, so can the characteristics of the participants affect the interviewer. Online surveys can reduce the impact of social desirability-respondent concerns about how their responses will appear to others. Many researchers may even find computer surveys to be a more ethical approach as it minimizes harm associated with revealing sensitive data (Monette, Sullivan, & Dejong, 2008). Although, sampling and representative aspects may be problematic all participants may access to computers or use of the internet and many may not respond to request. Often the sample population tends to be skewed towards people who are affluent, well educated, young and male. However, this study targets a fairly homogenous group of social work professionals whose roles will likely include the access and use of computer and internet.

Once approval was obtained by The University of Pennsylvania's Internal Review Board recruitment through online professional and social networks, email contacts and word-of-mouth was sought. A recruitment advertisement document was created and distributed online, as well as placement of advertisement in school social work affiliation newsletters. The recruitment advertisement can be seen in Appendix D. Participants were able to complete the survey online or anonymously in paper form for which they were provided stamped and addressed envelopes. Participation was voluntary and respondents consented by clicking the consent box on the screen or by checking the consent box in the paper form (see Appendix A) which indicated that the survey could be stopped at any time. No personal identifying information was used and all information shared was kept strictly confidential and stored in the REDCap database, a secure web-based application. Data collection occurred for a period of 2 months.

Quantitative Data Analysis

The demographic questionnaire was used for selection criteria and collection of descriptive data. Frequency distributions were obtained for the following categories: degree status; licensure/certification status; population serviced (general education, special education, or both); years of experience in social work practice; years of experience in school social work; and whether the participant was a parent of a child(ren) with ADHD.

One way ANOVA statistical test was conducted within group variables for both urban school social workers and suburban school social workers separately to observe relationships that may have emerged between level of education, population serviced (general education, special education, or both) and the outcome variable knowledge of ADHD. Independent sample *t*-Test was conducted to observe the relationships between ADHD knowledge base and the following variables: parental status of child with ADHD, years of experience as social workers and as school social workers, and licensure status. An independent sample *t*-Test was also conducted to observe differences between urban school social workers and suburban school social workers.

Qualitative Data analysis

Responses from the ADHD Management and Collaborations scale were analyzed using both quantitative and qualitative content analysis approaches. Whenever possible the utilization of both types of content analysis is supported in the research for as it provides more extensive analysis of the data "because qualitative analysis deals with the forms and antecedent-consequent patterns of form, while quantitative analysis deals with

duration and frequency of form" (Smith 1975, in Berg, 2004, p.268). Quantitative methods in this study involved analyzing the data for both frequency and manifest content and subsequent coding into categories. The units of analysis for these items included words and phrases that showed instances of knowledge of ADHD in the classroom and related interventions. Pre-existing categories were created, while allowing for new categories to emerge from the data. In addition, pre-existing categories were adjusted to better reflect the data outcomes.

The qualitative content analysis was conducted utilizing directed approach to content analysis. Hsieh and Shannon (2005) define qualitative content analysis as "research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (p.1278). They further speak to the purpose of directed content analysis:

> "The goal of a directed approach content analysis is to validate or extend conceptually a framework or theory. Existing theory or research can help focus the research question. It can provide predictions about the variables of interest or about the relationships among variables, thus helping to determine the initial coding scheme or relationships among variables, thus helping to determine the initial coding scheme or relationships between codes-deductive category applications.
>
> (Hsieh & Shannon 2005 p.1281)

As previously discussed, the school social work literature speaks to the invaluable role and collaborative capacity of the school social worker. Although there is little research exploring the processes of inter-disciplinary collaboration, and particularly so in urban school settings, Mellin's (2009) conceptual model of inter-disciplinary collaboration in expanded school mental health was used to guide the inquiry through directed content analysis for exploring the components, processes, and contextual influences within interdisciplinary collaboration. A directed content analysis approach

was expected to enable the uncovering of these patterns, themes, and categories important to the collaboration experience of urban elementary school social workers where pre-existing research is limited.

Responses were reviewed for words and phrases that reflected activity and perceptions as they related to collaboration with teachers. For items 1 and 2 the units of analysis were then sorted accordingly into pre-existing categories. Categories that emerged from the data were included as well in order to be exhaustive and have mutually exclusive categories. For items 3- 6, the units of analysis were sorted into pre-existing categories that reflect collaboration processes, collaboration components, and contextual influences on collaboration based on Mellin's model. The pre-existing categories and coding scheme for all items can be seen in Table 3. below.

Table 3. The ADHD Management and Collaboration Survey	
Items	**Pre-existing categories in coding scheme**
Item 1. Describe the issues that you think are most challenging for teachers when addressing ADHD in the classroom?	**Knowledge about ADHD manifestation in the classroom:** • Student behavior • Difficulty implementing classroom interventions • Modification of intervention for students • Systemic interventions: School-Wide • Understanding the nature of ADHD • Parental involvement/collaboration
Item 2. Discuss some effective classroom management interventions for students with ADHD?	**Knowledge of effective interventions derived from ADHD literature:** • Medication • Overall Classroom Management System • Classroom Behavioral Interventions • Instructional Interventions • Parent Involvement • Counseling Intervention
Item 3. Describe any available systems in your school(s) for collaboration between school social workers and teachers around ADHD management?	**Components**: • Interdependence component • Newly created professional activity components • Flexibility Component • Collective Ownership with goals component. **Processes of Interdisciplinary Collaboration**: • Reflection on process component • Communication processes • Collaboration processes • Coordination processes • Accountability processes • Cross disciplinary training processes
Item 4. What, if anything, gets in your way of providing the best level of support you could give to teachers for ADHD management?	**Contextual Influences and Processes:** • Professional Role (i.e. discipline driven philosophy about children • School/Organization characteristics (time, resources, incentives) • Personal Characteristics (trust, attitudes towards other disciplines) • History of Collaboration • Mutual Respect Processes • Partner Synergy Processes
Item 5. How would you characterize the ideal relationship between school social workers and teachers in addressing ADHD? In your experience what does the relationship teachers actually look like?	**Contextual Influences** • Professional Role (i.e. discipline driven philosophy about children • School/Organization characteristics (time, resources, incentives) • Personal Characteristics (trust, attitudes towards other disciplines) • History of Collaboration • Mutual Respect Processes • Partner Synergy Processes
Item 6. Finally, what is working around ADHD management in your school(s)? What might improve things around ADHD management in your school(s)?	**Processes and Contextual Influences**: • Professional Role (i.e. discipline driven philosophy about children • School/Organization characteristics (time, resources, incentives) • Personal Characteristics (trust, attitudes towards other disciplines) • History of Collaboration • Mutual Respect Processes • Partner Synergy Processes

CHAPTER V: FINDINGS

Participants

A total of (*N*=103) respondents completed the survey. Eleven of the respondents completed the survey in paper format and mailed in their responses in a pre-stamped envelope with no sender identifying information. A sample of (*N*=67) met the criteria for elementary school social workers in pre-k through 6th grade settings. There were (*N*=43) self-identified urban elementary school social workers and (*N*= 24) self-identified suburban elementary school social workers from varied cities and counties throughout the United States. Most of the participants were female (92.5%), Caucasian (62.7%) followed by Latino/Hispanic (28.4%), and African American (9%). The majority of participants held MSW degrees (94%), and had either a LCSW (47.8%) or a LMSW (31.3%). Most of the school social workers in this study reported working in either one school (43.3%) or two schools (34.3%). Most of the urban school social workers (*N*=41) also reported working in schools where 40%+ of the student population were eligible for free lunch, while only some suburban school social workers reported the same (*N*=2). Table 4 provides demographic data for these two groups.

Table 4. School Social Worker: Demographic Findings

	Urban *N=43*	Suburban *N=24*	Total %
Gender			
Female	39	23	92%
Male	3	1	6%
Race/Ethnicity			
Caucasian	22	20	62%
Latino/Hispanic	17	2	28%
African America	4	2	9%
Free Lunch	41	2	73%
Level of Education			
MSW degree	43	20	94%
Licensure/Certification			
LMSW	16	5	31%
LCSW	19	13	47%
Yrs. of experience as school social worker			
<10	19	14	49%
>10	32	10	49%
Yrs. of experience as social worker			
<10	12	12	40%
>10	26	12	57%
Yrs. of experience as school social worker			
< 5	5	8	27%
>5	31	16	62%
Yrs. of experience as social worker			
<5	5	7	18%
>5	35	15	79 %

Descriptive Statistics N=67

School social workers in this study reported most of their knowledge about

ADHD was obtained through trainings and workshops, followed by peer consultation, and college courses and scholarly journals. Results are reported in Table 5. Similarly, school social workers reported the same ranking for the source of training regarding working with teachers and classroom management issues. Supervision was ranked low, followed by online evidence based practice databases for receiving training. Very few reported obtaining information through all sources. Only two respondents reported having no sources for information pertaining to ADHD and classroom management.

Table 5.Sources for ADHD training

	Urban *N=43*	Suburban *N*=24	Total
College/University program	25	11	31
Trainings and Workshop	35	16	51
Peer Consultation	26	13	39
Scholarly Journals/Books	21	7	28
Online EBP Databases	6	1	7
Supervision	18	8	26
All of the above	3	7	10
No training	2	0	2
Where did you/do you obtain training on working with teachers and classroom management issues?			
	Urban *N*=43	Suburban *N*=24	Total
College/University program	19	7	26
Trainings and Workshop	37	13	50
Peer Consultation	23	5	38
Scholarly Journals/Books	7	6	13
Online EBP Databases	1	3	4
Supervision	17	12	29
All of the above	3	4	7
No training	1	0	1
Elementary School Social Workers N=67			

School Social Worker's Knowledge of ADHD

Knowledge of ADHD was measured through four subscales within The ADHD Belief and Attitude Scale (Johnson and Freeman, 2002) and through item 1 and 2 of the ADHD Management and Collaboration Survey which will be discussed in a later section. The ADHD Belief and Attitude Scale (Johnson and Freeman, 2002) was comprised of four subscales. Each subscale measured a component of ADHD etiology and efficacy of

interventions, and had a distinct scoring range. The ranges for each scale, along with the score urban school social worker group related to each scale can be seen in Table 3. The Behavior Management subscale measured knowledge about the efficacy of behavior management techniques to treat ADHD. A higher mean score in this subscale indicated more knowledge. For The Belief in Medication scale a higher mean score indicated more knowledge about the efficacy of medication treatment and perceptions surrounding the etiology of the disorder. The Diet scale measured perceptions related to treatment and interventions. A lower mean score in this scale indicated more understanding about the limited scientific evidence for certain treatments and interventions. Finally, the Family Impact scale measured perceptions surrounding the etiology of the disorder and a lower mean score on the scale indicated more knowledge. Overall, results from The ADHD Management and Belief Scale suggest that urban school social workers in this sample have substantial understanding of ADHD across all four areas and were able to distinguish between the empirically validated information related to ADHD from those that were not.

Table 6.Scoring Range for the 4 Scales and N of Items

Scale	**Score Range**	**N of Items**	**Cronbach's Alpha**	**Urban SSSW *M***	**Urban SSSW *SD***
BHVR_MGMT	8-56	8	.76	43.97	3.95
BELIEF_MED	5-35	5	.72	30.26	6.03
DIET	4-28	4	.75	13.95	4.95
FAM_IMPACT	5-35	5	.70	11.90	5.22

One-Way Independent Analyses of Variance in Urban Sample

A one-way independent ANOVA was used to observe any differences among: (1) urban general education school social workers (UGESSW), (2) urban special education social workers (USESSW), and (3) school social workers serving both general education and special education population (UG/SESSW). In addition, a one-way ANOVA was

conducted to observe differences among degrees: B.A/B.S; BSW; MSW; D.SW/PhD; and other. Finally, differences along license and certification status were also observed: LMSW or equivalent; LCSW or equivalent; School Social Work certification; or none.

Most urban school social workers in this sample were in the UG/SESSW group *N*=34, versus UGESSW *N*=4 and USESSW *N*=4. The analysis of variance test indicated that population served affected the score on the Family Impact scale $F(2.37)=3.62$, $p=.036$ and the Beliefs in Medication scale $F(2,39)=8.01$, $p=.001$. No differences in scoring were observed in the Behavior Management scale F (2, 39) =2.46, $p=.098$, or Diet scale F (2. 40) =.85, $p=.435$.

The Bonferroni post hoc test further revealed small but significant differences on the Family Impact scale occurred between UG/SESSW (*M*=11.5, *SD*= 4.9) who scored lower than USESSW (*M*=19, *SD*=5.1) $p=.047$. This result suggests that those school social workers who served both the special education population and general education population were generally somewhat more knowledgeable about the etiology of ADHD than those who only served the special education population. No other significant differences were found among other groups for this scale. Significant difference was found in the Belief in Medication scale between SESSW (*M*=37.7, *SD*=3.4), $p=.001$, who scored higher than the GESSW (*M*=23, *SD*=2.8) and G/SESSW(*M*=30.2, *SD*=5.5) $p=.037$, SESSW and G/SESSW $p=.028$. The result indicated that social workers who served special education were somewhat more knowledgeable about the efficacy of medication than the other two groups. No other groups showed significant differences for this scale.

Urban school social workers in this sample mostly all reportedly held MSW

degrees *N*=43 therefore an analysis of variance could not be performed. The mean scores for urban school social workers with an MSW degree N=43 were as follow: Behavior Management scale (*M*=43, *SD*= 3.9); Diet scale (*M*=13, *SD*=4.9); Family Impact scale (*M*=11, *SD*=5.2); and Belief in Medication scale(*M*=30, *SD*=6.0), suggesting general knowledge of ADHD.

Analysis of variance was performed for License/Certification status, LMSW, LCSW, School Social Work License/Certification. The ANOVA observed no effect in the Behavior Management scale $F(2,39)=.020$, $p=.980$; Diet scale $F(2.40)=1.34$, $p=.272$; Family Impact scale $F(2, 37)=.006$, $p=.994$; and Belief in Medication scale, $F(2,39)=.941$,$p=.399$. The Bonferonni post hoc revealed no significant differences between all groups $p>.05$.

Independent Sample t-Test in Urban Sample

Independent sample t-Test were performed for a number of variables for which the significance value was set at $p=<.05$. The following variables were compared: (1) participants who reported being the parent of a child or children with ADHD and those reported not having a child or children with ADHD; (2) participants with more than 5 years experience as social workers and those with less than 5 years experience as social workers; (3) participants with more than 10 years experience as social workers and those with less than 10 years experience as social workers; (4) participants with more than 5 years experience as school social workers and those with less than 5 years experience as school social workers; (5) participants with more than 10 years as school social workers and participants with less than 10 years as school social workers. There were no significant findings for these variables. Means, standard deviations and t-Test results for

urban school social workers can be seen in Table 7.

Table 7. Urban School Social Worker t-Test Results

Urban SSW Parental Status of Child with ADHD							
BHVR_MGMT SCALE				FAM_IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
Y	45.0	3.4		Y	12	5.3	
N	43.6	3.8	*t(39)=1.07 , p=.275*	N	11	5.2	*t(37)=.159 p=.875*
BELIEF _MED SCALE				DIET SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
Y	31	4.6		Y	14	4.8	
N	30	6.5	*t (39)=.51 , p=.612*	N	13	4.9	*t(40)=.680 , p=.50*
Urban SSW <5 and >5 Years of Experience in Social Work							
BHVR_MGMT SCALE				FAM_IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<5	42.8	5.2		<5	9.8	3.2	
>5	44.9	3.7	*t(38)=7.17 , p=.478*	>5	12.4	5.4	*t(36)= 1.05 , p=.291*
Belief in Medication Scale				Diet Scale			
Status	*M*	*SD*		Status	*M*	*SD*	
<5	29	6.8		<5	11.6	4.5	
>5	30	5.9	*t(38)=1.96 p=.845*	>5	14.1	5.0	*t(39)=1.06 , p=.294*
<10. >10 Years of Experience in Social Work							
BHVR_MGMT SCALE				FAM_IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<10	43	4.2		<10	11	4.8	
>10	44	3.7	*t(38)=.682 , p=.765*	>10	12	5.5	*t(36)=.577, p=.509*
BELIEF_MED SCALE				DIET SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<10	28	5.1		<10	14	3.9	
>10	31	6.1	*t(38=.369) , p=.085*	>10	13	5.4	*t(34)=.101, p=.677*
<5, > 5 Years of Experience as School Social Worker							
BHVR-MGMT SCALE				FAM_IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<5	43	4.4		<5	12	3.9	
>5	44	3.8	*t(39)=-.225, p=.586*	>5	12	5.5	*t(37)=.143 , p=.982*
BELIEF_MED SCALE				DIET SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<5	29	5.3		<5	13	4.1	
>5	30	6.2	*t(39)=.267 , p=.713*	>5	14	5.2	*t(40)=.075 , p=.748*
<10, >10 Years of Experience as School Social Worker							
BHVR_MGMT SCALE				FAM_IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<10	43	4.3		<10	11	4.3	
>10	44	3.6	*t(39).225 , p=.823*	>10	30	6.2	*t(39)=.143 , p=.713*
BELIEF_MED SCALE				DIET SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<10	29	3.1		<10	14	3.8	
>10	31	6.4	*t(39)=.267 ,p=.195*	>10	13	5.7	*t(40)=.075 , p=.301*

One-Way Independent Analyses of variance in Suburban Sample

A one-way independent ANOVA was used to observe any differences among: (1) suburban general education school social workers (SGESSW), (2) suburban special education social workers (SSESSW), and (3) school social workers serving both general education and special education population (SG/SESSW). In addition, a one-way ANOVA was conducted to observe differences among degrees: B.A/B.S; BSW; MSW; D.SW/PhD; and other. Finally, differences along license and certification status were also observed: LMSW or equivalent; LCSW or equivalent; School Social Work certification; or none.

In the suburban group N=18 served both the general and special education populations, N=3 served the special education population, N= 2 served the general education population. ANOVA was used to observe any differences among suburban general education school social workers (SGESSW), suburban special education school social workers (SSESSW), and those school social workers serving both general education and special education population (SG/SESSW). There were significant findings in both the Behavior Management scale F (2, 19) =4.89, p=.019 and the Belief in Medication scaled F (2, 21)=3.30, p=.057. There were no significant differences in the Diet scale F (2, 21) =1.67, p=.211, and the Family Impact scale F (2, 21)=.046, p=.955.

In the Behavior Management Scale those in the SSESSW (M=46.6, SD=1.1) scored higher than those in the SGESSW (M=36.5, SD=.70), and those in the SG/SESSW (M=43.1, SD=3.8) suggesting that those serving special education students alone knowledge had more about the efficacy of behavior management techniques. In the Belief in Medication scale, those in the SSESSW group (M=36.4, SD=4.9) scored higher

than those in the SGESSW group (*M*=25.5, *SD*=2.1). Special education school social worker overall showed small but significant differences in their knowledge of the etiology and treatment of ADHD compared to their colleagues who served only the general education population or those who served both.

Suburban school social workers mostly all reportedly held MSW degrees (*N*=20) therefore an analysis of variance could not be performed. The mean score for this group are as follow: Behavior Management scale (*M*=43, *SD*= 3.7); Diet Scale (*M*=13, *SD*= 4.2); Family Impact Scale (*M*=10, *SD*=3.9); Belief in Medication Scale (*M*=33, *SD*=4.6). In addition, no significant differences were observed related to Licensure/certification status. *N*=1 LMSW, *N*=5 LCSW, *N*=11 School Social Work certification, or *N*=4 none.

Independent Sample t-Test for Suburban School Social Workers

Independent sample t-Test were performed for a number of variables and the significance value was set at $p=<.05$. The following variables were compared: (1) participants who reported being the parent of a child or children with ADHD and those reported not having a child or children with ADHD; (2) participants with more than 5 years experience as social workers and those with less than 5 years experience as social workers; (3) participants with more than 10 years experience as social workers and those with less than 10 years experience as social workers; (4) participants with more than 5 years experience as school social workers and those with less than 5 years experience as school social workers; (5) participants with more than 10 years as school social workers and participants with less than 10 years as school social workers.

Significance was found between school social workers who had less than 5 years experience as school social workers and those who had more than 5 years experience on

the Diet scale. School social workers with <5 years experience as school social workers (M=16, SD=3.7) scored higher than those with >5 years experience (M=12, SD=4.4) t(22), and this finding was significant p=.046 . Scoring higher in this scale indicates that those with less than 5 years experience placed a lot of emphasis on the impact of diet on ADHD. No other significance between groups was found. Means, standard deviation, and t-test result for suburban school social workers can be seen in the Table 5.

Table 8.Suburban School Social Worker t-Test Results

Suburban School Parental Status of Child with ADHD							
BHVR-MGMT SCALE				FAM-IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
Y	43	4.4		Y	12	4.8	
N	42	4.4	*t(20)= -.429 , p=.673*	N	9	3.4	*t(22)=.125 , p=.082*
BELIEF_MED SCALE				DIET SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
Y	32	3.2		Y	13	5.0	
N	32	5.4	*t(39)=109 , p=.275*	N	12	3.3	*t(22)=.596 , p=.558*
Suburban SSW <5, >5 Years of Experience in Social Work							
BHVR_MGMT SCALE				FAM_IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<5	43	3.4		<5	11	5.2	
>5	43	5.0	*t(20)=.022 , p=1.0*	>5	9	2.8	*t(22)=.679 , p=.504*
BELIEF_MED SCALE				DIET SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<5	32	4.6		<5	14	4.5	
>5	32	5.8	*t(22)=.238,p=.819*	>5	12	4.5	*t(22)=.949 , p=.356*
Suburban <10. >10 Years of Experience in Social Work							
BHVR_MGMT SCALE				FAM-IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<10	43	3.4		<10	11	5.2	
>10	43	5.4	*t(20)=.0 , p=1.0*	>10	9	2.8	*t(22)=.679 , p=.504*
BELIED_MED SCALE				DIET SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<10	43	3.4		<10	14	4.5	
>10	43	5.0	*t(22)=.238 , p=.819*	>10	12	4.5	*t(22)=.827, p=.356*
<5, >5 Years of Experience as School Social Worker							
BHVR_MGMT SCALE				FAMILY_IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<5	43	4.0		<5	11	5.0	
>5	42	4.3	*t(20)=.103 , p=.919*	>5	9	3.6	*t(12)=.130 , p=.372*
BELIEF _MED SCALE				**DIET SCALE***			
Status	*M*	*SD*		**Status**	***M***	***SD***	
<5	32	6.0		**<5**	**16**	**3.7**	
>5	32	4.8	*t(22)=.273 , p=.787*	**>5**	**12**	**4.4**	***t(22)=2.1 , p=.046****
Suburban <10, >10 Years of Experience as School Social Worker							
BHVR_MGMT SCALE				FAM_IMP SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<10	43	3.6		<10	11	4.8	
>10	42	4.9	*t(20)=.929 , p=.364*	>10	9	3.0	*t(23)=.807, p=.428*
BELIEF_MED SCALE				DIET SCALE			
Status	*M*	*SD*		Status	*M*	*SD*	
<10	32	5.1		<10	14	4.2	
>10	32	5.4	*t(22)=.183 , p=.857*	>10	12	4.9	*t(22)=.525 , p=.308*

Urban and Suburban Sample Comparison

An independent t-Test for the urban school social workers and the suburban school social workers showed no significant difference between these two groups. The mean score in all subscale for urban and suburban school social workers are depicted in Table 6. Mean scores for both groups across scales were very similar. Although the Suburban group had slightly higher means in the belief in medication scale and slightly lower mean score in the family impact scale neither were statistically significant. Both group scores suggest substantial knowledgeable about the etiology and efficacy of treatment for ADHD.

Table. 9.Mean Scores and Standard Deviations for Measured of ADHD Knowledge in Urban and Suburban School Social Workers

	Urban		**Suburban**		
Scale	*M*	*SD*	*M*	*SD*	Range
BHVR_MGMT	43.97	3.95	43.00	4.18	8-56
BELIEF_MED	30.26	6.03	32.33	5.17	5-35
DIET	13.95	4.95	13.54	4.54	4-28
FAM_IMPACT	11.90	5.22	10.42	4.16	5-35

Knowledge and Management of ADHD

In this study, forty-three urban school social workers provided answers to the 6 semi-structured questions in the ADHD Management and Collaboration Scale. Two participants did not complete all 6 items; however, the responses for the items they did complete were included in the analysis. Responses were transferred from the REDcap database onto a Microsoft Word document and both, quantitative and qualitative content analyses were conducted.

Items one and two of The ADHD Management and Collaboration Scale were

analyzed for frequency and manifest data were coded into categories related to the following themes: (1) understanding of main concerns/needs expressed by teachers around classroom management of students with ADHD; (2) understanding of varied effective classroom management interventions for students with ADHD. Words and phrases that displayed instances of knowledge about ADHD in the classroom and related interventions were used as the unit of analysis. Pre-existing categories were created, while allowing for new categories to emerge from the data. In addition, pre-existing categories were adjusted to better reflect the data. Items 3 through item 6 were analyzed using a directed approach to qualitative content analysis. These items explored the following themes: 1) components of collaboration (2) processes of collaboration; and (3) contextual influences around collaboration in urban elementary school settings as detailed in the background section.

Validity was maintained as the themes and schemes were taken from the overall literature on ADHD, teacher knowledge of ADHD, and literature on school social work and inter-disciplinary collaboration. Reliability was maintained as there was only one coder. Consequently, the coding scheme could not be tested for consistency with other coders. However, to maintain coding consistency the coding scheme was continuously checked and adjusted to reflect the data more reliably. The analysis of responses revealed that urban school social workers were to a large extent knowledgeable about the challenges teachers face when addressing ADHD in the classroom and were informed about a variety of classroom management interventions. To some extent, this group also reflected the five components of interdisciplinary collaboration in expanded mental health (Interdependence, Newly created professional activity, Flexibility, Collective

Ownership with goals) as described by Mellin (2009). Although, school social workers expressed the desire to have more collaborative and cohesive practices with teachers, many expressed specific contextual influences that presented as barriers. The following sections report the findings from the qualitative inquiry into collaboration with teachers to address ADHD in urban elementary school settings.

Understanding ADHD and Teacher Classroom Concerns

When asked to describe what issues that perceived as most challenging for teachers in addressing ADHD in the classroom, participants extensively reported not only specific student behaviors that presented as major challenges for teachers, but teachers own lack of behavior management skills, and their lack of understanding of the ADHD diagnosis as major concerns. The following is a frequency listing which displays the categorized responses for item 1. Frequencies account for how often the items under each category appeared in the text across all responses rather than individual responses.

Table 10. Item 1

Describe the issues that you think are most challenging for teachers when addressing ADHD in the classroom?	***Text Frequency N***
1.Student behavior	**39**
2.Needing behavior management skills	**29**
3.Need understanding of diagnosis	**20**
4.Engaging parental support	**11**
5.Administrative/systemic Support	**8**
6.Student-teacher interactions/relationship	**8***
7.Time restrictions	**7 ***
8. Safety	**1***

A more in depth look at the types of behaviors that were reported indicated that school social workers were able to identify 11 unique types of behaviors that concerned teachers. These specific behaviors are in rank order of incidents in the text are as follow: Overall behavioral issues, 9; disruptive behaviors, 5; staying on task, 5; paying attention, 4; managing the other students in the classroom while attending to the identified student,

4; sitting still or remaining seated, 3; having to repeat directions 3; high energy 2; destructive behavior 2: impulsivity 2; and calling out 1. These behaviors are in alignment with criteria for ADHD (APA, 2000).

School social workers reported that teachers often experience the need for skill building around classroom management skills for children with ADHD. One school social worker expressed it this way, "*Teachers have lack of training on how to implement effective behavior strategies."* Another stated *"They (teachers) don't have proper training."* In addition, school social workers noted that many teachers did not have a good understanding of the ADHD diagnosis and this consequently affected the types of interventions they employed-a finding aligned with self-reports in the research on teacher knowledge of ADHD. *"Teachers also feel defeated by symptoms of ADHD when trying to help a child with ADHD,"* stated one respondent when asked to describe what challenges teachers face when managing ADHD in the classroom. Others stated that, "*Behaviors are seen as something the children can control,". . ."Teachers do not have a depth of understanding about ADHD" and "Teachers seem to struggle to believe that a child who is correctly diagnosed with ADHD cannot (sustain) control of their movement/focus to tasks."*

In addition, school social workers highlighted the sometimes negative dynamic that develops within the teacher-student relationship and social interaction as a result of the chronic persistence of the ADHD symptoms in the classrooms. Many teachers were perceived as taking student's behavior personally. Some responses from participants further elaborate on this interaction: *"Teachers see the child as defiant,"* and *"(Teachers) take the behavior of the child personally."* Other responses further illustrated this

interplay between teachers and students according to school social workers: *"Teachers feel resentful toward the child with ADHD who may be interrupting the learning for other students,"* and, *"There is lack of teachers/student goodness of fit."* This perceived interaction may further suggest a lack of teacher knowledge related to ADHD.

To a lesser extent, participants reported the lack of parent engagement and administrative support for teachers. Additionally, three new categories did emerge from this item. Although reported with lower frequently than other categories, school social workers reported that contextual influences such as a lack of administrative or systemic supports, time constraints, and safety concerns, were issues for teachers. One respondent included the issue of performance testing as a source of pressure for teachers. In her words, "*Emphasis on test performance promotes an atmosphere of limited patience,"* Others reported that teachers had *"too many piled on responsibilities and large class sizes*" which may further impede on their ability to personalize attention to children with ADHD. Another issue mentioned was federal policy that constricts teacher activities: the No Child Left behind Act was specifically mentioned by ($N = 1$) participant as a policy impeding teacher flexibility in the classroom. And finally*," Lack of teacher support from school mental health staff,"* was also cited as an issue that needs addressing, along with the need for greater professional development and *"concrete classroom resources"* for teachers.

It was perceived that teachers experience frequent time constraints coupled with other increasing demands and that these factors consequently have an impact on teachers' ability to address the needs of students with ADHD effectively. Participants observed that in addressing the needs of ADHD children, can at times, in the words of one, "*throw the*

whole class off and disrupt learning for the entire class." Another pointed out that time allotted to addressing ADHD issues is *"time taken away from teaching,"*

School Social Workers Have Strategies

Participants were asked to discuss effective classroom management interventions for students with ADHD. Responses were initially categorized into the type of classroom management strategy-in or outside of the classroom. There were six pre-existing categories for which the text was coded and the responses were aligned accordingly with no new categories emerging from the data. Initial count uncovered that behavior management strategies were mentioned 113 times and instructional strategies were mentioned 61 times.

Table 11 Item 2

Discuss some effective classroom management interventions for students with ADHD	***Text Frequency N***
1. Behavior Management interventions	**113** with **32** unique strategies
2.Instructional Strategies	**61** with **28** unique strategies
3.Counseling/Social emotional interventions	**15**
4.Engaging parent support	**9**
5.Psychiatric/Medical Interventions	**5**
6.Administrative/System Support	**5**

A more detailed analysis of the types of responses revealed 32 unique classroom behavior management strategies that were reported. Table 11 depicts these strategies. Strategies with frequencies > 5 are asterisked. Establishing routines, behavior plans and charts, planning for breaks and time outs, allowing movement, and providing praise, were among the most frequently mentioned behavior strategies.

Table 12. Behavior management strategies

Establishing Routines***5**	Movement *** 7**	Rewards /Consequences	Consistent limit setting
Seating near teacher ***10**	Breakdown behavior directions	Self regulation	Maintaining expectations and standards
Redirecting/prompting -Verbal -Proximity touch	Focusing techniques (Eye training)	Gum Chewing	Drinking water
Center with headphone for music	Limit stimuli/distraction	Seating in quiet area***6**	Index cards with "to do's"
Praise*** 7**	Limit choices	Breaks/Time outs*** 8**	Quiet environment
Structured transitions	Peer pairing	Timers	Ignoring behaviors
Behavior plans and charts ***10**	Stress ball	Structure	Suspension/monitoring
Classroom job	Limit # of targeted behavior	Teacher/student signals	Active activities

Similarly, for types of instructional interventions, 28 were unique strategies. Below Table 13 displays these strategies. Instructional strategies with frequencies >5 have an asterisk. Helping students organize and providing visual reminders were the most reported instructional strategies.

Table 13. Instructional Classroom Interventions

Advance notice for transitions	Have student repeat direction/Check for comprehension	Help student organize*7	Designated area to keep assignments
Teach study skills	Visual reminders*6	Accommodations	Social emotional learning
Frequent reminders about homework	Breaks/Extra time during test and assignments	Establish learning objectives	Adapt instructional material
Chunk work	Study skills	Timer	Tutoring
One on one work	Write down assignment	Extra books for students	Multisensory lessons
Computer assistance	Limit distractions	One direction at a time	Headphone
Buddy system	Monitor work/check-ins	Scaffold lessons	Small group work

Although social emotional interventions or counseling interventions often to do not take place in the classroom, these strategies were identified as effective classroom management strategies approximately 15 times across respondents within the text. These interventions were perceived as classroom supports for the teachers and as having an impact on behavioral changes for students. One school social worker responded that an

effective strategy involved *"having a discussion with the student to build mutual understanding of the diagnosis and what is expected and how the student will receive additional support."* Another school social worker noted the benefits of treatment modalities such as *"behavior managed with coaching through cognitive behavior modalities,"* and *"building self-awareness in the child."*

Actively engaging parental support and use of medication were identified as effective interventions to a lesser extent appearing 9 and 5 instances in the text respectively. One respondent emphasized the need for *"consistent contact and planning with the parent."* In relation to medication, one respondent noted that *"sometimes the right fit medication may help."*

A Look at Collaboration in Urban Schools

To ascertain the existing components and processes of collaboration in their schools, and related contextual influences, participants were asked to respond to the following items: Describe available systems for collaboration in your school(s) for collaboration between school social workers and teachers around ADHD management; What, if anything, gets in your way for providing the best level of support you could give teachers for ADHD management?; How would you characterize the ideal relationship between school social workers and teachers in addressing ADHD? In your experience what does the relationship teachers actually look like? ; And lastly, what is working around ADHD management in your school(s)? What might improve things around ADHD management in your school(s)? Utilizing Mellin's (2009) model of Interdisciplinary Collaboration depicted in Table 14, the text was analyzed to uncover the components, processes, and contextual influences involved in the collaboration between

urban elementary school social workers and teachers in urban school settings. Words and phrases were categorized for frequency and analyzed for meaning in order to understand what elements of collaboration were or were not present.

Table 14. Collaboration Component, Processes and Contextual Influences Based on Mellin (2009)

Components:	**Processes of Interdisciplinary Collaboration**:	**Contextual Influences and Processes:**
• Interdependence component • Newly created professional activity components • Flexibility Component • Collective Ownership with goals component.	• Reflection on process component • Communication processes • Collaboration processes • Coordination processes • Accountability processes • Cross disciplinary training processes	• Professional Role (i.e. discipline driven philosophy about children • School/Organization characteristics (time, resources, incentives) • Personal Characteristics (trust, attitudes towards other disciplines) • History of Collaboration • Mutual Respect Processes • Partner Synergy Processes

Over any other approach, participants indicated that most collaboration practices between teachers and school social workers took place during participation in interdisciplinary school teams formed to address student needs. A frequency count observed that teams with varied names were mentioned *N*=30 times in the text. Some examples of teams included: Instructional Support Teams; Child Study; Behavior Planning Meeting; Professional Learning communities; and Pupil Personnel Teams, among others. Although, actual goals and subsequent outcomes set by these teams could not be analyzed, some general assumptions can be made about these teams. Multidisciplinary teams can foster interdependence and a reliance on other professionals to meet goals that cannot be met by practicing in isolation. Finally they may invoke collective ownership of goals highlighting shared responsibility for designing and achieving intended goals, and foster accountability. Multidisciplinary teams may allow for several processes to take place. These teams may allow for coordination of services, have an aspect of collaboration if only to create the interventions, allow a forum for

communication between teachers and school social workers, and can engender accountability. However, further research would be needed to assess whether these teams achieved the recommended components and processes of collaboration.

Following team participation as a means for collaboration, a variety of direct service provisions to students were perceived as the second most reported avenue of collaboration with teachers and support for issues of concerns that surfaced in the classroom. One school social worker explained this process, "*When a student becomes disruptive that student is removed and taken to the social worker to calm the child down, or the social worker is called to the classroom to help calm the student."* Others noted that teachers requested *"classroom observation and interventions from social workers"* as well as "*pull-out counseling programs to address some of the child's needs."*

Interestingly, these referrals to social work services were seen as means of collaboration. Referrals, however, do not imply a collaboration process in the sense that two disciplines are actively involved in identifying a shared goal and each provides intervention. Rather this process seems to imply a sequential approach, whereby teachers identify a concern and refer to the school social worker who then intervenes. Although this process may be perceived as supportive to teachers, the two roles continue to work in silos - compartmentalized by discipline without carrying out the work together.

Consultation with teachers as a method of collaboration appeared often but with less frequency. The following items were listed as consultative practices: *"follow-up one on one meeting,*" *"conferences with teachers,"* and "*strategies and skills are modeled for teachers."* As explored again in the Discussion to follow, school social workers in this sample appeared to be using a consultative approach. This method of collaboration may

indicate interdependence as a collaboration component, where mutual respect and cross disciplinary training take place, but may lack the collective ownership needed for collaboration.

Informal discussion with teaches as a process of collaboration appeared in the text with a frequency of *N*= 10. School social workers indicated that common forms of communication with teachers included emails, notes, and *"hallway conversations.*" Informal methods of communication between the disciplines may suggest flexibility in the workplace an aspect that is essential to collaboration.

Other methods of collaboration on behalf of students with ADHD included the school social workers role in engaging parents; providing access to mental health resources in the community; providing assessments; and supporting school-wide behavior initiatives. A small number of school social workers (*N*=6) mentioned there were no systems for collaboration available in their school. Below are the frequencies of incidence for each category in item 3.

Table 15. Item 3

Describe any available systems in your school(s) for collaboration between school social workers and teachers around ADHD management?	***Text Frequency N***
1.Process:Team participation	**30**
2.Process:Direct intervention with students	**19**
3.Process :Consultation	**10**
4.Process:Informal discussions	**10**
5.Process: No systems available	**6**
6.Process: Engaging parental support	**6**
7.Contextual Influence: Access to mental health resources	**5**
8.Contextual Influence :School-wide behavior system	**5**
9. Contextual Influence: Assessment resources	**4**
10.Contextual Influence-Lack of personnel	**2**

Time is of the Essence and so are the Teachers

Time and resources were considered major barriers to supporting teachers.

School social workers reported major time constraints and large workloads. One participant expressed the following: *"I have ten schools and my primary focus is truancy. I hardly have any time to actually use my education and training to help students with mental illness."* Others reiterated this experience. As a participant stated, *"One factor is time and availability on part of teachers and myself."* Another put it this way, *"Teachers are not having enough time to sit and plan for children's needs in the classroom."*

Surprisingly, teacher receptiveness also emerged as a significant barrier to collaboration. School social workers mentioned that teachers were often unreceptive to collaboration, receiving support from the school social worker or implementing suggestions. One school social worker stated, *"Teachers don't follow through with my recommendations."* Other social workers emphasized similar experiences. As one participant stated, "At *times the teachers can be the greatest impediment due to their lack of patience and inconsistent implementation of strategies"* Another participant observed about collaboration on behalf of students with ADHD*, "The teacher doesn't bring it up. They feel it is their classroom, their domain, and we are not to butt in."*

This proves to be a key finding as it contrasts with the research on teachers and their reported need for support around the management of students with ADHD. Perceived lack of teacher receptiveness may be related to possible contextual influences. One such influence may be due to discipline-driven differences in philosophies about children. More specifically, discipline driven differences speak to the disconnected or contentious relationship between academic success and mental health. The literature speaks to the prioritization of academics over the social emotional development of children may influence the ability of professionals to engage in collaborative work with

individuals from other disciplines (Mellin, 2009). If teachers perceive their role as primarily academic and disciplinarian, this may leave less room for receptiveness of mental health interventions. Consequently, perceived lack of teacher receptiveness may have an impact on the amount of consultation activity that school social workers perform.

Several contextual influences also emerged as new categories related to school organizational characteristics. High caseloads and varying school social worker responsibilities were the third most cited barriers to providing support for teachers. School social workers reported experiencing "overload". In the words of one participant, *"[Things that keep me from collaborating include] paperwork, having too many different schools, not enough social workers to give good support to every teacher in every school assigned [and] being the only social worker in a school of 500 plus kids."*

Other barriers mentioned with less frequency included a perception that teachers have unrealistic expectations of the school social worker role. Additionally, it was perceived that there was need for teacher training and knowledge building, need for administrative support, and need for engaging parents in the process of addressing student needs with ADHD. School social workers experienced that teachers did not understand the course of diagnosis and the interventions school social workers provided, and further expected children's behavioral issues to subside immediately. Examples from three respondents include: "The expectation of 'instant fix' is a set up for failure because it is unrealistic."; "[There is] frustration when behaviors are not 'fixed' immediately"; and "Some teachers believe that the school social worker, by "counseling" the child with ADHD, will cure the child". Below are the frequencies of categories for the first item under the theme for contextual influences.

Table 16. Item 4

What, if anything, gets in your way of providing the best level of support you could give to teachers for ADHD management?	***Text Frequency N***
1. Contextual Influence: Time	**20**
2. Contextual Influence and Process: Staff receptiveness	**19**
3. Contextual Influence: High caseloads and responsibilities	**13**
4. Contextual Influence: Unrealistic expectations of school social work role ("magic fix")	**6**
5. Process: Need for training and knowledge	**5**
6.Process and Contextual Influence: Administrative/system support	**4**
7.Contextual Influence: Engaging parent support	**4**
8. Contextual Influence: Teacher feeling stressed and overwhelmed	**2**
9. Contextual Influence: Nothing	**3**
10. Contextual Influence: Student Attendance	**1**

We Need to Talk, Collaborate, and Listen

Many school social workers expressed that the ideal working relationship with teachers would be one where collaboration existed, along with mutual respect for each others discipline, interdependence, and collective ownership of mutual goals. School social workers in this sample considered that receptiveness from the teaching staff was an essential characteristic of collaboration. One participant stated that *"The ideal relationship is when the teacher is open to learning about what it takes to deal with the condition."* Another echoed this notion, "*The teacher is introspective and wants to improve her professional skills."* Similarly another respondent stated, *"The teacher has an open mind and willingness to collaborate and invest their time into participating in the intervention."*

Participants also reported that teachers and school social workers should engage in consultation and collaboration activities. *"Learning from one another in areas of expertise [and] gaining new insights and tools"* are important features of collaboration according to one participant. Another participant in similar fashion expressed that *"The*

ideal is when the social worker is welcomed in the classroom," while another stated; *"Ongoing communication about strategies that may be beneficial to dealing with the behavior in class [is what is needed]. Collaborative work [must be done] on meeting the student's needs."*

The need for improved teacher understanding of the school social worker role was mentioned, however this was less frequent. Similarly, school social workers reported that more time, reduced class sizes, and improved resources could help the collaborative relationship between school social workers and teachers. Below Table 17 reports the categories and frequencies for this section of the item.

Table 17. Item 5

How would you characterize the ideal relationship between school social workers and teachers in addressing ADHD?	***Text Frequency N***
1.Process:Consultation	**8**
2.Process and Contextual Influence: Staff Receptiveness	**13**
3.Contextual Influence: Collaboration	**5**
4.Contextual influence: Understanding the role of the school social worker	**5**
5.Contextual influence: Systemic barriers (time)	**4**

When asked to describe their current relationship with teachers, participants reported that collaboration and consultation did take place frequently. However, lack of teacher receptiveness recurred as a theme around barriers to the process. One school social workers reported "*My experience varies depending on the individual. Typically it is positive, but occasionally there have been challenges with a few individuals".* Another provided a more pointed response. *"It can be difficult to provide suggestions and feedback when teachers are not asking for suggestions".* While others echoed this experience and reported *"Teachers will hear my suggestions and disregard them"* and "*Many teachers have doubts about social work intervention"*

These responses can suggest that teachers may not share the same discipline driven philosophy about children, and/or indicate specific personal characteristics. This may be inferred as issues of trust and attitudes about the social work discipline, or history of ineffective collaboration. Below are the frequencies from each category.

Table 18. Item 5 part 2.

In your experience what does the relationship teachers actually look like?	***N= Text Frequency***
1.Process and Contextual Influence : Staff receptiveness	**14**
2.Process: Consultation	**5**
3.Process: Collaboration	**15**
4.Contextual Influence: Understanding the role of the school social worker	**5**
5.Conextual Influence: lack time	**3**

Suggestions for Improving the Management of ADHD in Urban School Settings

Participants were asked to describe aspects of the work they considered successful in addressing the management of ADHD in their schools. Internal resources such as referral systems, and external resources such as community partnerships, appeared most often in the responses in this group (*N*=13). This was followed by services that school social workers themselves were providing to children, and finally participants identified collaboration. The latter two categories had relatively low incidence (*N*=7 and *N*= 5 respectively). Similarly, the receptiveness of staff, parent involvement, and trainings were mentioned at low frequency. Below are the frequencies for these categories.

Table 19 Item 6.

Finally, what is working around ADHD management in your school(s)?	***Text Frequency N***
1.Internal/External Resources	**13**
2. Direct intervention	**7**
3. Collaboration	**5**
4.Staff receptiveness	**4**
5.Parental Involvement	**4**
6. Training	**3**
7.Administrative support	**2**

The need for further training and increased internal/external resources were also identified as key to improving the management of ADHD in schools. School social workers perceived the need for teacher training on classroom management skills, and better understanding the ADHD diagnosis. As one school social worker noted, *"What might improve things is teachers being trained in classroom management."* Similarly, others kept with the theme of training teachers*, "They (teachers) are not adequately educated about what ADHD can look like,"* and *"Good ongoing training as well as teaching tools and supplies to address executive functioning and related issues for learning, behavior and social interactions in the school setting [is] needed for all school personnel."*

The need for parental involvement was the third most cited suggestion for the improvement of ADHD management in their schools. However, the frequency rate was significantly lower than training needs and need for resources. Similarly low frequencies were noted for all other categories under this item. Below, Table 19 depicts the category frequencies.

Table 20. Item 6 part 2

What might improve things around ADHD management in your school(s)?	***Text Frequency N***
1.Training need	**25**
2. Internal/external resources	**14**
3.Parental Involvement	**8**
4.Direct Interventions	**7**
5.Collaboration	**7**
6.Staff receptiveness	**6**
7.Improved assessment	**5**
8.Administrative support	**4**

CHAPTER VII: DISCUSSION

This study aimed to assess urban school social worker's knowledge of ADHD, as well as how they apply this knowledge in the process of interdisciplinary collaboration with teachers in their school settings. It was hypothesized that there would be a relationship between the following within-group variables and level of knowledge about ADHD: level of education; license and certification status; population of service (general and special education); years of experience as social workers; years of experience as school social worker; and finally being a parent of child with ADHD. In addition, this study explored more specific knowledge about how ADHD manifest in the classroom, understanding of teacher concerns and needs in the management of ADHD, and the components, processes and contextual influences of collaboration occurring in urban school settings.

Most evident in the findings was that urban school social workers demonstrated knowledge of the etiology of ADHD, about the efficacy of different treatments for the disorder, and were also as knowledgeable as their suburban colleagues about ADHD. Few differences in knowledge of ADHD were seen within-group and between groups (urban vs. suburban). Most participants in the sample held an MSW degree (94%), and held either an LMSW degree (31%) or LCSW (47%). Participants also reported that their knowledge of ADHD, working with teachers, and classroom management were primarily obtained through trainings and workshops, followed by college/university program, and peer consultation. Most school social workers in this sample worked with both general and special education populations.

School social workers in this sample also appeared to have a great understanding

of the major concerns teachers held about ADHD, disruptive behaviors, and teacher need for behavior and classroom management skills. This finding is as important as it resonates with the research on teachers and ADHD (Wang, Haertel, & Walberg, 1997). Participants were able to report a variety of interventions and strategies for addressing ADHD in the classroom, an important finding placing emphasis on school social workers' ability to support teachers with the management of ADHD in the classroom (Grazcyk, 2003). Surprisingly, among the various interventions, parental engagement was seldom mentioned as point for collaboration. It was unclear from this study what accounted for the under-report of parent engagement. Perhaps this was due to the structure of the questions asked of participants or due to structures within the schools which set parameters for school social work practice that do not enable engaging parents. Finally, while school social workers valued a collaborative relationship with teachers, they also found that significant contextual barriers were present. SSW's reported issues with time constraints, limited resources (manpower and referral sources for mental health services), and most surprisingly, lack of receptiveness from teachers to receive support from the school social worker.

A Measure of ADHD Knowledge

A few noteworthy trends were present in the ADHD knowledge within-groups of both urban and suburban school social workers. Urban school social workers who serviced special education populations tended to score slightly higher on the Beliefs in Medication Scale than their general education school social work colleagues or those who served both populations. Urban special education social workers appeared to have

slightly more knowledge about the etiology of ADHD and efficacy of behavior management and medication as interventions for ADHD. However, this same group scored slightly higher than their general education school social work peers in the Family Impact Scale. This result suggests that special education school social workers may also believe that family issues impact the development of ADHD, a link for which there is little or no evidence in the ADHD literature.

In the suburban group there were small but significant differences along. The Behavior Management Scale and the Belief in Medication Scale where special education school social workers scored slightly higher than general education school social workers. These results indicated that the special education school social workers in the suburban group were more knowledgeable about the etiology and treatment of ADHD than their colleagues who served the general education population. Another notable difference in the suburban group was related to years of experience as a school social worker. Suburban SSWs with less than 5 years experience as school social workers scored higher on importance of diet versus the SSWs with more than 5 years experience as school social workers. Although there have not been definitive links between diet and ADHD, recent media coverage has placed more emphasis on the importance of nutrition and food quality. Perhaps more recent social workers entering the field of school social work are placing more value on the effects of nutrition as well.

The qualitative inquiry revealed that urban school social workers were also able to identify the types of behaviors related to ADHD that most presented problems for teachers. These concerns included general disruptive behaviors, difficulty staying on task, and difficulty paying attention. Furthermore, SSWs were able to recognize the need for

teacher training around the behavior and classroom management of students with ADHD - an important aspect for addressing the symptoms. Research in mental health has found that teacher's behavior management practices are important predictors for student on-task behavior and achievement (Hawkins, 1997). This information is useful in helping to identify training areas for both school social workers and teachers. Although school social workers identified a variety of behavioral intervention and instructional strategies, additional training on techniques which have been empirically validated and supported is paramount for improving effective practices for students with ADHD and related attention difficulties.

Collaboration through Interdisciplinary Teams in Urban Schools

This study found that there was an overall participation of urban school social workers in some type of multidisciplinary team that discussed students' academic and behavioral needs. School social workers reported participating in a variety of teams where teachers were also participants. As previously discussed, when teams function in an interdisciplinary manner they are noted for fostering interdependence, reliance on other professionals to meet goals that cannot be met when practicing in isolation. In addition, newly created professional activities invoke collective ownership of goals, shared responsibility for designing and achieving intended goals, and foster accountability (Mellin, 2009), These teams may allow for coordination of services, can further allow a forum for communication between teachers and school social workers, and can engender accountability for all stakeholders. What remains unclear from this study is whether the teams identified are meeting these purposes and reaching intended

goals. This sample also reported that the teams served as a primary avenue for teachers and school social workers to come together and discuss students. As such, an attempt to assess the quality of multidisciplinary teams is essential. Additionally, in light of limited time during the structure of the day available for professional development, these multi-disciplinary teams seem to be a likely forum for providing the much needed training on ADHD, other relevant mental health and social impacts, and bring awareness about professional roles in the context of collaboration.

Training staff to further their understanding about professional roles in the context of collaboration emerges as an important focal point for urban school social workers. School social workers reported that collaboration occurred often as a result of identification of students in need and referral to school social worker services. This suggests a misunderstanding of collaborative practices or perhaps the lack of opportunity for teachers and school social workers to come together and create interventions. School social workers reported a general misunderstanding of their role by teachers and the expectation of a "magic fix" of student symptoms. In other words, there was an expectation that once a child was referred to the school social worker the counseling interventions would be sufficient to address and resolve the issues of concern. In spite of prevailing evidence that counseling interventions alone are ineffective, schools continue to use this as a primary mental health modality for addressing student mental health issues (Weist, 1997). The literature also suggests that school social workers continue to practice in this student-centered manner versus through more systemic approaches (Allen-Meares & Dupper, 1998). Although identification of ADHD and referral to services are appropriate steps, it is important to see that identification, assessment, and

intervention do not occur in isolation, but rather as a collaborative effort between teacher and school social worker working together for a common goal. Clear, common goal-setting, consistent feedback and adjustment to interventions are essential for addressing the needs of students with ADHD. Furthermore, this process allows for both disciplines to be aware of one another's role in addressing the needs of the student, and reduce the likelihood of false expectations from one another. This includes understanding each others' unique frame of reference, having realistic expectations, creating strategies that bring together the skills of each discipline, and ensuring that each partner fulfills their role (Rappaport, et al., 2003).

This study further indicated that collaboration took place through formal consultation, and through informally structured discussions with teachers. Although, consultation is not overtly identified in Mellin's (2009) model of inter-disciplinary collaboration, but rather through Sabatino's (2009) framework of practice, the role of the consultant provides a level of support for teachers that involves the transfer of knowledge, alternative perspectives, and new skills for interventions. School social workers in this sample reported being often involved with teachers in this manner which suggests a move in the direction of collaboration. On the other end, participants identified informal discussions with teachers as a space where collaboration took place. While being able to have informal conversations with teacher when time and resources are constrained displays flexibility in school social work roles, it is important that urban schools help to create and support structured forums for these conversations to take place.

Urban schools social workers reported experiencing several contextual barriers that inhibited consistent collaboration. School social workers reported that time, high

caseloads and responsibilities, and most surprisingly, teacher receptiveness for receiving and implementing strategies, created the most barriers to collaboration in urban schools. This latter finding is a sharply contrasted to what is reported in the research about teachers and ADHD. The literature on teachers overwhelmingly highlights teacher's need and desire for support in identifying and implementing strategies for students with ADHD (Burke & Patternite in Evans et al., 2007; Fabiano & Pelham, 2003). In addition, school social workers reported that teachers not only misunderstood the diagnosis of ADHD, but also the time frame in which the symptoms would be addressed and how they would be addressed. Misunderstandings and unrealistic expectations for change in student behaviors may play a role in teacher willingness to receive suggestions for interventions, persistence with the interventions, or willingness to adjust the intervention plans when results are not present.

As indicated earlier, Wang, Haertled, and Walberg (1997) conducted a meta-analysis of influences on student learning in inner-city schools and found that classroom management had the largest influence on learning compared to home environment, parental support, student-teacher social interactions, and peer support. The latter factors had even more influence than quality of instruction and school culture. While research on all factors continues to grow, understanding the relevancy of classroom management strategies is imperative for both teachers and school social workers. Teachers continue to hold negative attitudes about the use of behavior management programs for students with ADHD (Graczyk, et al., 2002). This may be partly due to the competing demands on teachers and the limited resources they have. Teachers may also not see behavior management within the scope of their role. Additionally, teachers may have limited

training around the behavior management of disruptive students and may not understand how to implement these or have consistent support for doing so, issues which are exacerbated in urban-low income schools (Scruggs, & Mastropieri, 1996). However, the data suggest that school social workers can assist teachers in identifying, implementing, and adjusting effective strategies. Low-income urban schools should capitalize on and promote this resource, as well as help clarify role expectations.

School social workers and teachers in urban low-income schools would benefit from systems that are embedded within their daily schedule so that they are able to meet and hold discussions about issues concerning their students with ADHD. If these schools work to integrate school social workers and teacher partnerships around classroom management and behavioral interventions this may help to reduce the stress of meeting multiple demands, and help to focus discussions into more productive intervention plans.

Urban School social workers in this study recognized that they need more opportunities to talk to teachers. They report having the skills and capacity to provide support to teachers, have the awareness that there is a need to provide support for teachers, and the desire to collaborate. They also recognize the need for further training for both themselves and teachers, and express the need for additional support within the school setting, as well as with community partners. In addition, they acknowledge that when collaboration does occur it is beneficial and often successful. Urban, low-income schools should take advantage of the in-house resource available through school social workers, and support and foster their knowledge of ADHD so that they may in turn support both teachers and students. These schools must bring teachers and school social workers together to address the needs of students with ADHD. Additionally, urban

schools must continuously assess whether their existing systems of collaboration are meeting the goals they intend to.

Limitations

Findings were limited by a number of factors. The sample of convenience and its size limited the generalizability and reliability of the study. Although the sample was nationally representative, the self-selection aspect of participants who were recruited through online social networks, and snowball sample technique may have impacted on the homogeneity of educational backgrounds and licensing status of the participants. Most of the participants had a least a masters degree and were licensed in the field of social work therefore limited comparison could be made to groups who had other levels of education and did not obtain licensing. Additionally, the measure used to assess knowledge of ADHD has limited known psychometric properties. The measure was initially constructed to assess parental beliefs about ADHD, and use of the scale prior to this study had only been observed in one other study measuring the knowledgebase of teachers and school psychologists.

The qualitative inquiry also presented limitations. The use of online survey tools, while increasing the accessibility of respondents in spite of geographic location and reducing time constraints and cost, did limit other aspects of the qualitative inquiry. The ADHD Management and Collaboration Questionnaire did not allow for probing participants for more in-depth information, or for helping clarify statements. Also, it did not provide for rich dialogue that may have provided context and additional insights about participant experiences.

Lastly, but perhaps the most important limitation in the inquiry of collaboration, was that the exploration of collaborative practice was limited to capturing the experience of school social workers alone. The study would have benefitted from similar assessments and exploration from the teacher perspectives, school administration, parents, and perhaps even students. This would allow for better triangulation of the data.

Implications for School Social Work Practice

Evidence that urban school social workers have strong knowledge of ADHD and value the practice of collaboration with teachers, broadens and helps shape the future scope of school social work practice. Knowledge in this area may lend itself useful to practice applications with other disruptive behaviors and related attention disorders that often occur in classrooms settings. While school social workers have historically practiced in a student-centered manner, providing individual and group services (Costin, 1975; Phillippo & Stone, 2011), current school climate calls for a shift from this framework towards a development of an expanded model of school social work practice that is inclusive of collaboration teachers and interventions that may take place in the classroom. Practice that involves modeling of effective strategies for teachers may result in maximizing school capacity to address disruptive behaviors and attention related disorders. An expected outcome would be a wider range of students who can benefit from effective strategies, rather than only those being directly serviced by the school social worker.

Additionally, this type of collaborative practice may serve to maximize and promote the school social worker role in their schools. Teachers can benefit from in

classroom support and collaboration, and consequently eliminate the challenges of time. Conversely, the school social worker may have greater opportunity to build relationships with teachers, understand first hand the concerns of their students within the classroom setting, and incorporate preventive work for students who have yet to be identified as at-risk. This approach shifts the focus from individual student services to whole classroom interventions and school-wide interventions responding to calls for including mezzo and macro level practices in school social work.

This study also raises implications for schools and districts. The role school social workers play, their presence in schools, and the parameters under which they operate require further standardization. First, greater assessment about the number of school social workers in practice continues to be needed. Similarly, further assessments about their level of preparation and certification are required. In this study most of the participants held a masters degree and were licensed or certified in their field of practice. Because different school districts and states have varying credentialing requirements, we need to understand how this affects knowledge and practice is critical (Altshulter & Webb, 2009; Sabatino, Alvarez & Anderson-Ketchmark, 2011). Furthermore, the parameters of their functions in school must be understood before it is defined. School social workers practice within the limitations of their roles in the schools they service, the structural influences that allow them or inhibit them from certain practice, and finally their preparation and skill set. A clear role for NASW and other credentialing boards is needed in setting the stage for how schools utilize their school social workers, and how school social workers become prepared to deliver services in schools.

Finally, the role of schools of social work in appropriately preparing their

graduates for the new demands in school settings is essential. Social workers who practice in current multidisciplinary settings, specifically schools, require training on how to collaborate. This training must include the goals of collaboration, the components, processes, contextual influences on collaboration, and expected outcomes. Additionally, social work programs must provide current and effective evidence-based practices to their students. Reliance on school social work practice textbooks is no longer sufficient to prepare school social work practitioners. Students must be exposed to and trained on effective evidenced-based strategies and analysis of current research-based literature in their fields. Lastly, school social work students must understand the political climates that affect school reform, how it impacts the organizational structures of schools, and subsequently their scope of practice.

Recommendations for Future Research

While this study reports evidence of substantial general ADHD knowledge held by school social workers, future research would benefit from a sample with diverse educational backgrounds. As different states, cities, and districts continue to have varying certification and licensing standards for practice, a more heterogeneous sample might further discern training needs in both urban and suburban school social workers with differing educational backgrounds. In addition, efforts to have more in-depth understanding of collaboration between school social workers and teachers in urban school setting, further research is needed to assess the quality of these collaboration components and processes and their contextual influences. Future research might include in-depth interviews with teacher, students, parents and administration. Additionally,

observations of the actual collaborative process would be informative. Since interdisciplinary teams were reported to be a primary mode of communication and collaboration between school social workers, teachers and other staff, it would be important to examine the structure, goals, functions, and outcomes of these teams in addressing ADHD. Contextual influences appeared to be in large part perceived as inhibiting collaboration. In particular, lack of teacher receptiveness to be highlighted as an area needing further exploration as it is dissonant with research on teachers reporting their need and desire for support around better understanding the ADHD diagnosis, implementing behavioral interventions and classroom management. Finally, future research should incorporate larger randomized samples, the use of more strongly validated measures, and outcome related measures.

CHAPTER VIII: CONCLUSION

This study revealed evidences that school social workers in urban school settings are equipped to understand and address ADHD. Further, it revealed that although they were met with certain barriers, collaboration opportunities exist for both teachers and school social workers to address the needs of students. In an era of standardization and accountability, and as the prevalence of the disorder continues to increase and alongside disparities in access to services for impoverished minority children with the disorder, low-income urban schools must equip themselves with and support staff that can provide appropriate services for students who would otherwise not have access to them. Providing appropriate services to at-risk students includes having a well informed and proficient staff, an infrastructure that allows staff to collaborate, and instilling support for the process of collaboration on a continual and consistent basis. Urban schools would benefit from promoting and utilizing the role of the school social workers as a resource to support teachers not only in the area of ADHD but with other disruptive behaviors and attention related concerns. Urban schools would benefit from assessing their systems of collaboration and continue to support the process. This support can be particularly sought through providing clarity about roles and functions of all stakeholders, and maximizing forums where collaboration can thrive. Both school social workers and teachers are participants in multidisciplinary teams, an opportunity where both training around ADHD, and collaboration efforts can be discussed and planned. Focusing on team functions can alleviate a lot of time constraints and heavy work load experienced by both teachers and school social workers, and in turn foster interdependence between the two disciplines and other school staff. Schools of social work should as well focus their

curriculum on providing up to date and effective evidence-based treatment modalities for addressing ADHD. Additionally, as the environments in which social workers practice continue to change and demand for interdisciplinary practices increases, social work programs should further incorporate training around interdisciplinary work. Finally, in a time of economic constraints, it is important to be mindful that school social work roles become more vulnerable to attrition, or over extending their services to multiple settings making it difficult to apply their knowledge in more effective ways. This is particularly so for resource drained urban low-income schools. However, it is evident that the contributions of school social workers can serve to maximize support to teachers. The invaluable role of the school social worker in this process beckons to be acknowledged by providing these professionals with the opportunity to use their skill sets.

APPENDIX A
Consent Form for Online Survey

Survey: Exploring School Social work Knowledge of ADHD and Inter-disciplinary Collaboration with Teachers in Urban Schools

Introduction and Purpose of Study
I am a graduate student in the DSW program at the University of Pennsylvania School of Social Policy and Practice, conducting research for completion of a dissertation.

What is involved?
You will be asked to type your responses to a brief survey which includes 27 items relating to ADHD, a few general questions about your background (age, gender, work environment, etc.) and 6 semi-structured questions where you will be asked about your experience with teachers on issues pertaining to ADHD.

I will ask you questions about:

- Your understanding and knowledge of ADHD in children
- Collaboration in the school setting

Confidentiality:
The information you share will be kept strictly confidential. The survey is completed using a computer-mediated computer system called REDCap. Responses will remain anonymous and confidential. Results will be used for the completion of my dissertation and may be used for scholarly publication.

Risks of participating: The risks of participating are minimal. The ways that confidentiality and anonymity will be protected are described above. In the unlikely event that you find that what you shared is upsetting to you after the completion of the survey please be in touch with me. I welcome your comments about this survey process and should you feel the need for additional assistance, I will provide you with the names and numbers of individuals or agencies that can provide further assistance.

Benefits of participating:
Although participating will not help you directly, it is anticipated that the results of the study will help inform and improve the quality of training and education available to school social workers and may enhance the collaboration efforts of those working with students with ADHD. It is also possible that having a chance to share your story will be an interesting and possibly even a rewarding experience for you.

If you have questions about the project after the interview is over, please feel free to contact me:
Mery Diaz, LCSW
Doctoral Candidate
University of Pennsylvania
School of Social Policy and Practice
meryd@sp2.upenn.edu
917-678-5538

If after talking with me you have other concerns, you can my dissertation chairperson who is supervising this work:
Lani Nelson-Zlupko, Ph.D.
University of Pennsylvania
School of Social Policy and Practice
LaniNZ@sp2.upenn.edu

Your participation is completely voluntary:

Your participation is completely voluntary: You do not have to participate in this project. There will be no negative consequences if you decide not to participate. Any program or agency that you work with will not know whether you participate or not. If you do decide to complete the survey today, you can stop participating at any time. You can also refuse to answer any questions that you don't want to answer. By clicking below you are consenting to participate

APPENDIX B
Recruitment Advertisement

Seeking Urban Elementary School Social Workers To Share Their Experiences

I am a doctoral student at the University of Pennsylvania's School of Social Policy and Practice seeking **school social workers in urban elementary school settings** to complete an online survey about **ADHD and collaboration processes in schools** for use towards research for a doctoral dissertation. Participation is voluntary, confidential and anonymous.

Completion of the survey takes approximately 10 minutes and can be done from any computer with internet access.

If you are interested, or know of anyone who may meet the criteria for participation and would be interested in **completing the survey**, below you will find the link to a secure database for completion of the survey:

Short survey link:
http://tinyurl.com/68grtrn

Full survey link:

http://redcapsurvey.med.upenn.edu/surveys/index.php?hash=7cbbc409ec990f19c78c75bd1e06f215

For further information, please contact me:
Mery Diaz, LCSW
Doctoral Student
University of Pennsylvania
School of Social Policy and Practice
meryd@sp2.upenn.edu

APPENDIX C

Demographic Data (3-4 minutes to complete)

Please check the answer or fill in the answer that best describes you

What is your gender?: M ☐ F ☐

What is your race/ethnicity?:

African American ☐ Asian/ Pacific Islander ☐ Other ☐
Latino/Hispanic ☐ South Asian ☐
Caucasian ☐ Native American ☐

What is the highest degree(s) you currently hold? :

B.A/B.S ☐ B.S.W ☐ M.S.W ☐ M.A ☐ Ph.D/D.S.W ☐ Other ☐

Do you currently hold any of the following (please check all that apply):

LMSW/equivalent ☐ LCSW/equivalent ☐ School Social Work License/Certificate ☐ None ☐

How many years have you been practicing Social Work?

0-5 ☐ 5-10 ☐ 11-15 ☐ 15-20 ☐ 20-25 ☐ 25+ ☐

Are you currently a School Social Worker? Yes☐ No ☐ **If yes,** school staff ☐ or On-site CBO staff ☐

How many years have you been practicing as a School Social Worker?

0-5 ☐ 5-10 ☐ 11-15 ☐ 15-20 ☐ 20-25 ☐ 25+ ☐

Which of the following settings best describes the setting where your school(s) is located? :

Urban ☐ Suburban ☐ Rural ☐ Other ☐ **Please indicate city/state**:_____

Do you practice in :

1 school ☐ 2 schools ☐
3 schools ☐ 4+ schools ☐

What grades do you work with:

K-6 ☐ 6-8 ☐ 9-12 ☐ Other ☐

Do you practice with:

General ED ☐ Special Ed ☐
Both☐

How many students in the school? (check off as many as apply**):**

0-400 ☐ 400-800 ☐ 800-1200 ☐ 1200+ ☐

To the best of your knowledge what is the racial/ethnic distribution in percentage of students in your school (s)?:

African American ___ Caucasian ___ Latino/Hispanic ___ Asian/ Pacific Islander___
South Asian___ Native American___ Other___

What is the percentage of students that qualify for free lunch at your school?

0-20% ☐ 20-40% ☐ 40+%☐

Where did/do you obtain training on ADHD (check all that apply):

College/University degree program ☐ Trainings and Workshops ☐ Peer Consultation☐
Online EBP Databases ☐ Scholarly Journals/Books ☐ Supervision ☐ No training☐

Where did you/do you obtain training on working with teachers and classroom management issues: College/University☐ Trainings and Workshops☐ Peer Consultation☐
Online EBP Databases ☐ Scholarly Journals/Books ☐ Supervision ☐ No training ☐

Thank you. Please continue to the next section.

APPENDIX D ADHD Beliefs and Attitudes Scale

This questionnaire asks for your opinions about possible causes of ADHD, characteristics of children with ADHD, and treatments for the disorder. Please read each statement and circle the extent to which you disagree or agree.

Note: For the purposes of this questionnaire ADHD also refers to diagnoses of ADD or ADD/H.

1. Medication is a safe treatment for ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

2. Special diets are often helpful for treating ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

3. ADHD is related to neurological functioning in the brain.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

4. Special parenting techniques are helpful in managing ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

5. Behavior management is an effective treatment for ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

6. A combination of medication and behavior management is best for treating ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

7. Training parents in behavior management is a useful treatment for ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

8. It is likely that medications used to treat ADHD are effective because they alter the neurotransmitters in the child's brain.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

9. The amount of structure in the child's environment (e.g., routines) can affect ADHD symptoms.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

10. Medication is almost always an effective treatment for ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

11. ADHD results from parents being inconsistent with rules and consequences.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

12. ADHD often is an allergic reaction or sensitivity to food preservatives.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

13. Some children develop ADHD because they want attention.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

14. Improving parenting skills would benefit a child with ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

15. Media reports make me uneasy about giving a child medication for ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

16. Family problems such as alcoholism or marital disorder often contribute to a child's ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

17. ADHD can be the result of the child not trying hard enough to control his/her behavior.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

18. Limiting a child's sugar intake can be an effective treatment for ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

19. Vitamin therapy is useful in treating ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

20.I would not hesitate to support medication for a child if a doctor recommended it.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

21. I would be reluctant to teach specialized parenting techniques to treat a child's ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

22. Social skills training can be helpful for children with ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

23. Clear, consistent rules and consequences are helpful in treating children with ADHD.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

24. ADHD is related to parents' use of poor discipline strategies.

1----------2----------3----------4----------5----------6----------7
Disagree Neutral Agree

Thank You. Please continue to the next section

APPENDIX E

ADHD Management and Collaboration Survey

Please answer the following questions to the best of your knowledge. The more detail you provide, the greater value to all who will benefit from this research. Please feel free to give as complete and full responses as possible, your input is extremely valuable. Also feel free to give examples.

Items
Item 1. What issues do you think are the most challenging for teachers to address in the classroom management of students with ADHD?
Item 2. What are some effective classroom management interventions for students with ADHD?
Item 3. Do you feel your school has systems for collaboration between school social workers and teachers around ADHD management? If so, what does collaboration look like?
Item 4. How would you describe the relationship between social workers and teachers in addressing ADHD?
Item 5. What, if anything, gets in your way of providing the best level of support you could give to teachers for ADHD management?
Item 6. Finally, what might improve things at your school around ADHD management?

You have now completed the survey. Thank you for your participation. If you would like me to contact you for a more in-depth conversation or for any other reason, please provide your phone number or email address along with your first name. Note: the follow up information will not be used in any way in this study.

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