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How Does a Teacher's Level of Knowledge of Attention Deficit Hyperactivity Disorder Impact a Teacher's Efficacy in Student Engagement, Instructional Practices, and Classroom Management

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How Does a Teacher's Level of Knowledge of Attention Deficit Hyperactivity Disorder Impact a Teacher's Efficacy in Student Engagement, Instructional Practices, and Classroom Management

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Abstract

How Does a Teacher's Level of Knowledge of Attention Deficit Hyperactivity Disorder Impact a Teacher's Efficacy in Student Engagement, Instructional Practices, and Classroom Management. Merritt, Pamela Humphries, 2017: Dissertation, Gardner-Webb University, ADHD Knowledge/Teacher Efficacy/Attention Deficit Hyperactivity Disorder

This quantitative study examined how a teacher's level of knowledge of ADHD impacted a teacher's self-efficacy in student engagement, instructional strategies, and classroom management. One hundred and twenty-three teachers participated in the study. They were asked to complete surveys and vignettes to assess their ADHD knowledge and their self-efficacy. Each efficacy subscale was calculated to determine if there was a correlation between teacher knowledge of ADHD and a teacher's sense of efficacy.

The Knowledge of Attention Deficit Disorder Scale (KADDS) was used to assess teacher knowledge. KADDS consisted of three subscales with the first subscale being general knowledge. Teachers answered 54.7% of the questions correctly. The second subscale addressed symptoms and diagnosis of ADHD. The mean percentage correct was 51.5. The final subscale addressed treatment of ADHD. A mean percentage of 42.4 was answered correctly. These scores were not high. Another tool that was used to measure teacher knowledge was vignettes. These vignettes were used to examine teacher expectations of students using teacher responses to questions based on a series of vignette descriptions of hypothetical children with ADHD symptoms.

The Teacher Sense of Efficacy Scale was used to measure teacher efficacy. This was a 12-point scale that measured teacher efficacy in three areas: student engagement, instructional strategies, and classroom management. These subscales exemplified the teacher's personal and general teaching efficacy. Overall, teachers exhibited mid-high to high efficacy on all three domains. In addition, there were no noticeable differences among demographic categories.

A correlation analysis was performed to test for significance between teacher knowledge of ADHD and self-efficacy in student engagement, instructional practices, and classroom management. The findings were inconclusive about how cognitive factors such as self-efficacy and teacher's knowledge of ADHD are related to their behavior with children in the classroom.

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Chapter 1: Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a common condition that affects children, adolescents, and even adults. According to the Centers for Disease Control and Prevention (CDC, 2007), ADHD is one of the most common mental health disorders of childhood. An estimated 8.7% of United States children ages 8 to 15 meet diagnostic criteria for ADHD. This statistic is equivalent to 2.4 million children nationwide (Maitre, 2007). Research indicates that at least one student in every classroom has ADHD (DuPaul & Stoner, 2003). Children with ADHD face many challenges both academically and socially. Oftentimes, their poor academic performance is due to their inability to sustain attention. They may also have problems completing class work and homework (Barry, Lyman & Klinger, 2002; DuPaul & Stoner, 2003; Fisher, Barkley, Edelbrock, & Smallish, 1990). Those students who demonstrate behavioral symptoms of ADHD in the classroom are at an increased risk to experience grade retention or placement in special education (Raggi & Chronis, 2006; Wender, 2000). These students frequently have low self-esteem which has been found to negatively impact their adjustment to college as young adults (Reiff & Tippins, 2004).

Research also shows children with ADHD often have difficulty with socialization skills among their peers and may exhibit limitations in recognizing and responding to social situations (Gumpel, 2007; Kos, Richdale, & Hay, 2006; Osman, 1997; Selikowitz, 2004). Moreover, these children are likely to suffer from anxiety or depressive disorders (Bagwell, Molina, Kashdan, Pelham, & Hoza, 2006). Children with ADHD exhibit drug use in adolescence and adulthood if untreated (Arias et al., 2008; Reiff & Tippins, 2004, 2004; Wilens, 2003). All of these are troublesome characteristics, yet many teachers lack the knowledge and skills to assist these children in succeeding in the classroom and in

life. Because ADHD is so prevalent in schools today, teachers are very likely to teach multiple students with ADHD during their career. In many classrooms, students are expected to sit quietly, listen to the teacher, and complete their work. While this may be an easy task for many students, those with ADHD may find this to be an impossible feat. When a child with ADHD has reached his or her limit, they may begin disrupting the class in unimaginable ways. This disruptive behavior can be difficult for teachers to manage in the classroom and impairing for a child's academic, social, and emotional growth (Kos et al., 2006).

Research has shown that children with untreated ADHD are at a much greater risk of persistent problems in adulthood than children without ADHD (Goksoyr & Nottestad, 2008). This is especially true in urban areas where mental healthcare is limited. Teachers are often on the front line in seeking referrals for students and carrying out school-based interventions (Graczyk et al., 2005). Without sufficient knowledge or training on ADHD for addressing children's needs in the classroom, teachers may feel unprepared to handle the many challenges children with ADHD can pose and be less likely to seek services or support for their students. In previous studies with elementary teachers, 98-100% of teachers felt they could benefit from more training on ADHD and behavior management (Barbaresi & Olsen, 1998; Kos, Richdale, & Jackson, 2004).

Because of the complexity involved in educating students with ADHD, teachers of these students often face major obstacles in the classroom (Billingsley, Fall, & Williams, 2006; Bradley, Henderson, & Monfore, 2004; Hastings & Bham, 2003). On any given day, a student's battle with his/her behaviors and emotions may take precedence over planned academic lessons. This unintended lack of attention to academics can result in less academic time in the classroom. For example, a study of 109

teachers of students with behavioral difficulties found that teachers felt least comfortable in this area of their teaching role (Sutherland, Denny, & Gunter, 2005). Because of the challenging nature of their classrooms, these teachers had low levels of confidence or low teacher efficacy in their preparation to plan and provide quality instruction to their students.

Research has shown that teacher efficacy is related to and predictive of various components related to academic success. Teacher efficacy is a teacher's belief in his/her ability to impact student learning. It has been related to both student and teacher characteristics and outcomes, specifically,

- Student academic achievement (Armor et al., 1976; Ashton & Webb, 1986; Ross, 1994).
- Teacher predictions and perceptions of their students' academic achievements (Gibson & Dembo, 1984; Meijer & Foster, 1988; Tournaki & Podell, 2005).
- Teacher dedication to the profession (Coladarci, 1992; Evans & Tribble, 1986).
- Teacher persistence in overcoming obstacles in the classroom (Glickman & Tamashiro, 1982; Skaalvik & Skaalvik, 2010).
- Teacher willingness to implement new instructional strategies (Berman & McLaughlin, 1997; de Mesquita & Drake, 1994; Ghaith & Yaghi, 1997; Guskey, 1987).

In Skaalvik and Skaalvik's (2010) study, the teacher efficacy construct is shown to be powerful in understanding the complex nature of teaching students with behavioral difficulties that are often identified with students with ADHD. The results of this research are useful to provide overall awareness of improvements needed in our teacher

education programs that support and prepare teachers to work with students who have ADHD.

Rationale

Because there is an increasing high number of children with ADHD in schools, teachers are likely to teach a significant number of students with ADHD during the duration of their careers. Without a strong sense of self-efficacy, teachers may be unprepared to successfully handle all of the challenges children with ADHD pose in the classroom, especially when it comes down to their behavior.

Studies have found that teachers often hold misconceptions of ADHD which can lead to less accurate teacher expectations (Denham & Michael, 1981; Woolfolk & Hoy, 1990). This can lead to a higher risk for stress and burnout. Teacher knowledge about ADHD has been studied descriptively. Theoretical evidence exists that teacher self-efficacy may interact with knowledge of ADHD; empirical studies are lacking in this area. To date, few studies have explored teacher variables in relation to teacher self-efficacy in working with children with ADHD.

In the current environment, teachers have few opportunities to really assess and scrutinize the underlying assumptions behind the approaches they use; nor do they have the chances to examine how different approaches could help or hurt their practice (Fries & Cochran-Smith, 2006.) The study of teacher efficacy has the potential to improve the field (McArthur, 2008); however, little research has explored the teacher efficacy of these educators.

Teacher efficacy research has identified important aspects of the constraint that could be pertinent in the study of teachers of students with ADHD. First, there is a relationship between teacher efficacy and how teachers perceive and react to student

behavior. Not only do teachers with high teacher efficacy spend less instructional time trying to "control" their students and their behaviors (Denham & Michael, 1981; Woolfolk & Hoy, 1990), but research has demonstrated that teacher efficacy is related to teacher views and expectations of their students. For instance, teachers with low self-efficacy predict that students who exhibit negative behaviors will have poorer academic outcomes (Gibson & Dembo, 1984; Meijer & Foster, 1988; Tournaki & Podell, 2005). Teacher efficacy impacts student behavior through student conceptions of their academic ability (Denham & Michael, 1981). This is particularly important for a population of students who can display negative behaviors and struggle academically. Teachers with high teacher efficacy could potentially be positive influences on students and their school successes, both academically and behaviorally.

Teacher efficacy has also been significantly correlated with teacher commitments to teaching (Coladarci, 1992; Evans & Tribble, 1986; Gencer & Cakiroglu, 2007). Though all teachers have issues in the classroom, teachers with a high sense of efficacy cope better with emotional exhaustion (Skaalvik & Skaalvik, 2010) and seem to persist through barriers more than their low teacher efficacy counterparts (Cantrell & Callaway, 2008). This dimension of teacher efficacy could be particularly important to a population of teachers who face significant challenges in the classroom and are prone to burnout due to their inability to manage and teach students with ADHD.

This dissertation explores the teacher efficacy of teachers serving students with ADHD in the elementary, middle, and high school settings utilizing a quantitative research methods approach. A considerable amount of research in teacher efficacy focuses on how to appropriately measure and define teacher efficacy utilizing quantitative research methods (Denzine, Cooney, & McKenzie, 2005; Henson, Kogan, &

Vacha-Haase, 2001; Skaalvik & Skaalvik, 2010; Tschannen-Moran, Hoy, & Hoy, 1998).

The findings of this study are intended to generate a more complex and holistic understanding of a teacher's level of knowledge of ADHD and its impact on a teacher's efficacy. The results of the study could possibly lead to additional research and aid in our understanding of teacher efficacy as it pertains to teaching students with ADHD. This further understanding of teacher efficacy can then be used in support of positive school reform for these teachers and students. Also, the results of this research will be beneficial to teacher education programs. Finding delineated characteristics of these teachers may better prepare perspective teachers who work specifically in this teaching role. Finally, this research will promote further research and recognition of teachers who teach students with ADHD.

The purpose of this study was to explore and come to understand efficacy of teachers who educate students. There are several factors that influence a teacher's efficacy; but for this study, knowledge and training of ADHD was the variable examined in detail. The following question served as a guide for this study: "How does a teacher's level of knowledge in ADHD impact a teacher's efficacy as it pertains to student engagement, instructional practices, and classroom management?"

Although educational researchers have studied teacher efficacy, few have studied teacher efficacy as it pertains to teaching students with ADHD. This study addressed how teachers of ADHD students perceived their ability and confidence as impacting their students' learning.

Chapter 2: Literature Review

Statement of the Problem

This study examined a teacher's level of knowledge of ADHD and the impact it has on teacher efficacy. This topic was chosen to seek answers as to why there is a large disparity in the effectiveness of teachers when teaching students with ADHD. Research shows that efficacious teachers are capable of bringing about changes in student behavior, motivation, and learning (Goddard, Hoy, & Hoy, 2000). Based on this information, the researcher's goal was to find out if highly efficacious teachers had a positive impact on students with ADHD based on their knowledge of ADHD.

Purpose and Research Questions

The purpose of this research was to gain a broader prospective of what the literature says about which teachers are most effective in teaching students with ADHD, examining one crucial factor that influences a teacher's efficacy: knowledge and training of ADHD. This study was quantitative in design. It addressed the question, "How does a teacher's level of knowledge of ADHD impact a teacher's efficacy as it pertains to student engagement, instructional practices, and classroom management?"

Description and Critique of Scholarly Literature

Student motivation and achievement are thought to be the outcome of a teacher's hard work. Rotter (1966) proposed that teachers who motivate students and increase academic achievement even among difficult students were considered highly efficacious. Bandura's (1977) theory identified teacher efficacy as a type of "self-efficacy" – the product of a social cognitive process in which people form beliefs about their own capacity to perform at a given level of competence (Goddard et al., 2000; Henson et al., 2001). The works of both these theorists have developed into various viewpoints about

teacher abilities and effectiveness in educating students. Many of these views will be highlighted in this study.

According to research, the characteristics of efficacious teachers are

- Better organization.
- A willingness to try new ideas to meet student needs.
- Being less critical of students whenever they make mistakes.
- More positive about teaching.
- A reluctance to refer students to special education services.
- More likely to implement positive classroom management strategies

(Henson et al., 2001; Pinkston-Miles, 2003; Scharlach, 2008).

Therefore, teachers with high levels of self-efficacy are connected to high student achievement; these teachers have the giftedness to work hard under adverse circumstances and to inspire students to succeed (Gordon, 2001; Lin & Tsai, 1999; Muijs & Reynolds, 2002).

Definition of Teacher Self-Efficacy

Teacher efficacy is teacher confidence in their ability to promote student learning (Hoy, 2000). This was first discussed as a concept more than 30 years ago when these two items were included in studies conducted by researchers at the Rand Corp. In these studies, teachers were asked to express their opinion of agreement or disagreement with each of the following statements and their responses ignited the idea of teacher efficacy.

- A student's home environment determines his or her level of motivation and performance.
- A really hard working teacher can break through the most difficult student.

Teachers were asked to agree or disagree with each of the two statements and

their responses began the concept of teacher efficacy. From the beginning, this study suggested that a teacher's belief in his or her ability to effectively impact student learning is critical to the success or failure in a teacher's behavior (Henson et al., 2001). This study found that students whose teachers scored high on efficacy did better on standardized tests than their peers who were taught by teachers with lower efficacy scores (Henson et al., 2001).

Over the years, since the concept of teacher efficacy was first developed, researchers have sought to provide answers to these questions. Jerald (2007) highlighted some teacher traits found to be comparable to a teacher's sense of efficacy. According to Jerald, teachers with a strong sense of efficacy

- Tend to demonstrate greater levels of planning and organization.
- Are more open to new ideas and methods to better meet the needs of their students.
- Are more resilient when things do not go well.
- Are less critical of students when they make mistakes.
- Are less willing to refer a difficult student to special education.

Anita Woolfolk, a pioneer on teacher efficacy, stated that teachers who set high goals for themselves and are willing to try another strategy when one strategy is not working are more prone to have students who learn at a high level (Shaughnessy, 2004).

Researchers who are interested in teacher efficacy have sought to develop a more extensive instrument than the Rand instrument to measure teacher beliefs. Their work has also increased understanding of the concept. It is now generally thought that two types of beliefs comprise the construct of efficacy. The first belief is personal teaching efficacy. This addresses a teacher's personal feeling of confidence with regard to his or

her teaching abilities. The second belief is a more general teaching efficacy. It seemingly reflects a general belief about the capacity to reach a difficult child (Hoy, 2000). Researchers have also found that these two beliefs are independent of each other. It is possible for a teacher to have faith in the ability of teachers to reach difficult children, but at the same time lacking confidence in his or her personal teaching ability.

One important factor in determining a teacher's sense of efficacy is experience and student achievement. Has the teacher been able to make a difference in student learning? Hoy (2000) suggested that some of the most meaningful influences on a teacher's efficacy are positive experiences during the beginning years of teaching. If this true, the initial years of teaching could be crucial to the ongoing development of teacher efficacy. Hoy also discussed other factors that can play a part in a teacher's sense of efficacy.

1. Vicarious experiences. If a teacher sees a fellow teacher using a particular strategy that is effective with students, he or she will feel more confident that this strategy will work for his or her students as well.
2. Social persuasion. This could entail highlighting effective teaching practices at a staff meeting or a professional development session. For this to be effective, the teacher would have to have positive subsequent experiences from this social persuasion.

Hoy believed the way new teachers are oriented into the profession has a powerful effect on a teacher's sense of efficacy. Hoy asserted new teachers should be encouraged to ask questions and be made to feel that asking questions is desirable. This could prohibit teacher failures that in turn affect positive teacher experiences. These experiences contribute greatly to self-efficacy.

Collective Efficacy

Some researchers have studied collective teacher efficacy. Goddard et al. (2000) defined this as "the perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students" (p. 481). Teachers believe they can teach all students, even the most difficult ones. Veteran teachers have likely experienced the ripple effects of both a positive and negative sense of collective efficacy. Schools with a positive collective efficacy are more likely to accept challenges and persevere to overcome them. On the contrary, schools with a negative collective efficacy are less likely to accept responsibility for poor student performance and more likely to play the blame game for their students' lack of success. To summarize their research on collective efficacy, Brinson and Steiner (2007) implied that a school with a strong degree of collective efficacy can also build loyalty among teachers and they will be more willing to share their expertise with others.

Studies have also shown there is a correlation between collective efficacy and student performance. In a study conducted by Hoy, Sweetland, and Smith (2002), they discovered collective efficacy "was more important in explaining school achievement than socioeconomic status because it is easier to alter the collective efficacy of a school than it is to change the socioeconomic status of the school" (p. 82).

Internal and External Efficacy

Another area of teacher efficacy is internal efficacy which deals with the extent to which a teacher believes he or she has the influence, will, and ability to affect student learning or whether student learning is the end result of forces put in place outside the classroom setting (Guskey & Passaro, 1994; Hoy, 2000). Dweck (2006) examined a very simplistic belief about ourselves that controls every aspect of who we are. Dweck

concluded this belief restricts or facilitates our success. Dweck believed that who we are daily comes from our mindset. A growth mindset comes from the belief that your basic qualities are things you can improve through effort (Dweck, 2006). If this is true, one's internal efficacy can change and grow through application and experience.

Internal efficacy considers the personality, confidence, and teaching strategies embodied by the teacher. Teachers with internal efficacy believe strongly in their ability to teach all students regardless of race, gender, ethnicity, or social background and that they can help them to be successful academically (Guskey & Passaro, 1994; Hoy, 2000).

On the contrary, external efficacy, is the view that a student's background, family status, and social upbringing are key factors that influence student learning in the classroom (Goddard et al. 2000; Guskey & Passaro, 1994). Both views seem to be present in the average classroom; however, the view that is be considered in this study is internal efficacy where teachers are expected to assume most of the responsibility for student learning.

Benefits of Teacher Efficacy

Teacher efficacy has been connected to student outcomes in several different studies. In each case, they have shown that students whose teachers scored high on efficacy did better on standardized tests than their peers who were taught by teachers with lower efficacy scores (Gordon, 2001; Henson et al., 2001; Lin & Tsai, 1999; Muijs & Reynolds, 2002). A Rand study in 1976 evidenced a direct correlation between student achievement and a teacher's sense of efficacy (Goodwin, 2010/2011). This study found teachers who lacked high efficacy qualities had low expectations of students, cast blame on students when things did not go as planned, and had a negative outlook about student learning and their behavior (Ferguson, 2003; Gordon, 2001: Scharlach, 2008). The

literature seems to support the idea that efficacious teachers have more positive and effective results in the classroom.

Literature suggests that some of the most compelling influences on the maturation of teacher efficacy are mastery experiences during student teaching and the first few years of teaching (Hoy, 2000). This supports Bandura's (1977) theory that self-efficacy can be easily influenced early in learning, thus the initial years of teaching could be crucial to the long-term development of teacher efficacy.

Teacher Knowledge of ADHD

Many teachers may not know much about ADHD and how to successfully teach students with ADHD. Vereb and DiPerna (2004) explored the relationship between teacher knowledge of ADHD, knowledge of common treatments, and the acceptability of different approaches to use when teaching these students. In their study, elementary school teachers (K-6) were recruited at various in-service trainings and could sign up to take part in the study. Forty-seven teachers were accepted; 94% were female; and the group was equally distributed between the various grades. The group had an average of 13 years of teaching experience; 79% had a master's degree; and 64% had received prior training in ADHD. The teachers represented five different school districts in Pennsylvania: urban districts, rural districts, and suburban districts.

Teachers were given a survey that was in four categories. The first had 31 true or false statements (with a "Do Not Know" choice) about their knowledge of ADHD. The second had 12 true or false statements (with a "Do Not Know" option) on their knowledge of treatments (medications) that are commonly used for students with ADHD. The third category asked teachers about the degree to which they agreed with students being given medication using a 4-point Likert scale where 1 meant "not at all likely" and

4 indicated "very likely." Category 4 asked teachers the level to which they believed behavioral management strategies were effective, using the same Likert scale.

The results indicated that there is a significant connection between what teachers know about ADHD and the level they agree with students being medicated. There was no relation between the length of time they had been teaching students with ADHD and their knowledge of ADHD. Their experience teaching students with ADHD demonstrated a moderate relationship with the ratings of medication acceptability. This suggests that such experience provides teachers with more exposure to medical interventions than other forms of intervention.

In the above-referenced study, the sample survey was small. Forty-seven teachers do not necessarily represent the entire teaching field, and perhaps their educational experience and own academic career do not represent the experience and academic career of other districts or states. Although not discussed by the researchers, Likert scales may be a convenient way of gathering held beliefs but include possible variables. A "2" to one teacher may not be the same as a "2" to another teacher; thus, the results would be different. The third and fourth categories appear to be subjective. Since they were asked the level of their acceptance on two separate issues, there cannot be a universal correct or incorrect answer.

Miranda, Presentacion, and Soriano (2002) evaluated the effectiveness of a multi-component program in a classroom by comparing students with ADHD in a class where the teachers were trained how to deal with ADHD students and with a control group of teachers who had not been trained. The effectiveness was measured by three separate tasks: (1) neuropsychological tests that assess student inhibitory control, memory, perceptual-motor control, and attention; (2) behavioral rating scales completed by the

parents and teachers on how the students were functioning in their natural environments; and (3) direct observations of the behavior in the classroom and a review of their academic records.

A control group of 21 teachers was designated as well as a group of 29 teachers trained in behavior modification techniques, cognitive behavior strategies, and instructional strategies (Miranda et al., 2002). The teachers were found via an advertisement at the Center of Instruction for Teachers which offered courses for general education teachers in primary schools who taught students diagnosed with ADHD. The student selection had a criteria of six separate categories that needed to be met: (1) they scored 12 or higher on the Inattention-Disorganization and Hyperactivity-Impulsivity diagnostic criteria of the DSM-IV; (2) had ADHD symptoms for over 1 year; (3) had the onset of the symptoms at 6 years or younger; (4) had an IQ of 80 or higher; (5) had an absence of psychosis or strong neurological, sensory, or motor impairment; and (6) had a lack of stimulant treatment.

The experimental group of students with ADHD included 29 children: 26 boys and three girls ranging from 8 years and 2 months old to 9 years and 1 month old. The control group included 21 students diagnosed with ADHD: 16 boys and five girls ranging from 8½ years old to 9 years and 4 months old. Most of the students were of low socioeconomic status but reportedly did not have cultural or environmental disadvantages. There were English and Spanish speaking students.

In their courses, the teachers had a class on general information about ADHD which aimed to provide the teachers with insight to help in the modification of existing biases in the behavioral explanation of students with ADHD. The second and third classes trained the teachers on specific behavior modification techniques such as positive

reinforcement; token systems; and how to deal with non-desired behavior using strategies such as extinction, time out, and response cost. The results of the study showed that with the teacher training, the students exhibited better classroom management and were better at monitoring their own antisocial behavior. Learning problems and inhibition at school were reduced. Miranda et al. (2002) argued that this study proves teachers should be trained in ADHD-related techniques because of the better results. This is crucial because classroom management is dependent on the teacher; and if they are better trained, they will be better equipped to set up a classroom where students with ADHD are better behaved and learn better.

Another study on teacher knowledge of ADHD and the impact it could possibly have on teacher behaviors and perceptions was conducted in Melbourne, Australia. The participants were 140 elementary teachers (119 female) who were teaching Grades K-6. The average age of the teachers was 42 with an average of 20 years of teaching experience. All participants reported experience teaching at least one student with ADHD, with over half instructing 20 or more students with ADHD.

To access knowledge of ADHD, teachers were given a 20-item self-report questionnaire developed by Jerome, Gordon, and Hustler (1994). In this questionnaire, teachers were asked to read each item and then rate it as true or false. The questions assessed knowledge of biological factors in ADHD, family influences, medical and educational interventions, and myths. Participants were also given 10 vignettes describing children with inattentive and hyperactive-impulsive behavior, with and without disruptive behaviors. Each vignette was between 155 and 165 words long and described an elementary school aged child who clearly met the symptoms of ADHD. Following each vignette, participants were asked to rate each situation on 9-point Likert

scales. These ratings reflected important areas of teacher behavior toward and perceptions of children with ADHD.

Teacher Knowledge and Training

Researchers have reported that preservice and in-service teacher beliefs influence their teaching behaviors (Cagle, 1998; George & Aaronson, 2003; Gordon, 2001; Henson et al., 2001; Lin & Tsai, 1999; Maxton, 1996; Scharlach, 2008). What teachers believe about students who are likely to struggle academically and/or behaviorally can influence new teacher practices (Lin & Tsai, 1999; Scharlach, 2008). New teachers may not have experience in dealing effectively with struggling students such as those with ADHD. They may not have high enough expectations to advance the students to the next level. The student may only achieve a minimal amount of knowledge due to the teacher's low expectation. This negative aspect is what Cagle (1998) described as "self-fulfilling prophecy" (p. 21). This happens when students give back to their teachers what they perceive is expected of them. This approach can have negative implications for students with ADHD.

Hill, Phelps, and Friedland (2007) demonstrated in their study how new teachers' beliefs affect their expectations for students. A lesson on the historical event of the Amistad uprising revealed the assumptions preservice teachers held about cultural diversity in urban middle schools. What the preservice teachers encountered in this educational setting was very different from what they expected to find. The preservice teachers found that in the urban schools, students were knowledgeable, hardworking, enthusiastic, and well behaved. Teacher beliefs can also have adverse effects on students and on their ability to learn in an environment where they may not feel comfortable. Because these particular students were studying a topic they could relate to, they

sustained engagement and productivity. As in this case, for students to become engaged in meaningful learning, they must see the relevance of the material to their lives and their surroundings (Fry & DeWit, 2010/2011). Teachers have to be sensitive to students' culture and learning styles when teaching, otherwise student boredom may be misconstrued as laziness or inability of learning.

A small number of studies have measured teacher knowledge and perceptions of ADHD. Teachers are influential in the diagnosis of ADHD because of their daily interaction with the students in a range of pertinent situations (Pelham & Evans, 1992). One previous study found that the mean percentages for correct answers on ADHD knowledge questionnaires of teachers range from 48-76% (Jerome et al., 1994; Kos et al., 2004; Ohan, Cormier, Hepp, Visser, & Strain, 2008; Sciutto, Terjesen, & Bender Frank, 2000). Variations in results may reflect methodological and measurement issues related to scale development and construct definitions (Kos et al., 2006). Although no direct relationship was found between ADHD treatment knowledge and treatment acceptability, experience teaching children with ADHD has been positively related to higher levels of knowledge (Jerome et al., 1994; Kos et al., 2004; Sciutto et al., 2000). In their study, a survey instrument was used to collect data from elementary and middle school teachers to measure teacher knowledge about ADHD. The instrument was called the Knowledge of Attention Deficit Disorder Scale (KADDS). This questionnaire was developed by Sciutto et al. (2000) and had been previously administered in six New York area schools. The KADDS questionnaire was also used in a study in Australia by Kos et al. (2004). KADDS is a 39-question scale intended to measure teacher knowledge and perceptions of ADHD. Every KADDS question pertains to ADHD and uses a true, false, or don't know structure.

The KADDS construct deliberately included only items that are empirically supported and well documented (Sciutto et al., 2000). The items in the KADDS questionnaire address both positive and negative signs of ADHD. Items assessed respondent knowledge of not only what ADHD is but also what it is not. Items referring to negative behaviors included characteristics of other mental disorders. Results from five later studies suggested that the KADDS total scale (36 items) had high internal consistency (.80 to .90; Sciutto et al., 2000). The three subscales within the measure (Associated Feature/General Knowledge, Symptoms/Diagnosis, and Treatment) all had moderate levels of internal consistency (.52 to .75). This discrepancy was probably due to the fewer items that made up each subscale in comparison to the entire KADDS scale (Sciutto et al., 2000).

The target population for the previous study included five public middle school campuses in three independent school districts in south Texas. Teachers from all content areas were able to participate in the study and complete the KADDS instrument. From this target population of 341 teachers, the respondent sample size was 107. The number of responses by participating school districts included 75 responses from School District A, 17 from School District B, and 24 from School District C.

Data were entered into a statistical computerized program. Variables assessed were overall knowledge scores of ADHD, general knowledge, symptoms/diagnosis, and knowledge of treatment in relation to ADHD (Sciutto et al., 2000). In addition, demographic variables such as the level of education of the teachers, years of teaching experience, and number of courses taken at the college level that pertained to ADHD were assessed. Once data were collected, the first job was to check the variables for accuracy. Descriptive statistics were calculated, including the mean and the standard

deviation (SD) for the numeric variables.

The majority of surveyed teachers (79.5%) reported bachelor's degree as their highest level of education. Approximately 20% of respondents selected master's degree, and none of the participants reported attaining a doctoral degree. The next demographic variable considered was the level of coursework dealing with learning disabilities. Approximately 66% of the respondents had no previous coursework in their teacher preparation college courses dealing with ADHD. Approximately 18.7% had at least one course in higher education coursework dealing with ADHD; 3.7% and 6.5% had three or more courses respectively. It appeared that some teachers were completing their teacher education programs with little to no coursework covering the education of students with special needs related to ADHD.

Another study on knowledge, training, and practices of students with ADHD was conducted by Schnoes, Reid, Wagner, and Marder (2006). Surveys that asked about their child's learning disabilities, medication, and health were sent to 467 parents. Eighty-five percent of the parents responded to the survey.

Of the 467 students diagnosed with ADHD aged 6 to 13, 81.5% were male; 77.6% were White; 15.2% were African-American; 5.6% were Hispanic; 69.2% received stimulant medication; and the families of 36.4% earned under $25,000 a year.

Students with special education accommodations, whether ADHD or not, were disproportionately male. The students with ADHD had a larger percentage of males than the general education group (81.5% to 63.6%). Approximately two thirds of students diagnosed with ADHD received stimulant medications. Only .5% of nonspecial education students received stimulant medication. Special education students, ADHD and non-ADHD, were more likely to live in low-income households of incomes at or

below $25,000 than General Education students, 36.4% to 23.3%.

Approximately 63% of special education students with ADHD and 69.4% of non-ADHD special education students spend most of their school day in general education classrooms according to the Schnoes et al. (2006) study.

Two thirds of those students with ADHD received at least one form of nonacademic services; however, approximately 91% of students with ADHD received academic assistance.

Since approximately 63% of students with ADHD are in general education classrooms, general education teachers must be cognizant of this and should know how to successfully teach these students. Different teachers, though, have their own ideas on special education in general and how to teach students with ADHD in particular. In order to successfully teach students diagnosed with ADHD, teachers should have a basic understanding of the disorder itself. In order to implement successful strategies, a teacher must understand the symptoms of the disorder, why students are placed in general education classrooms, and the amount of experience schools and teachers have in teaching students with ADHD (Barbaresi & Olsen, 1998; Bussing, Gary, Leon, Garvan, & Reid, 2002; Jerome et al., 1994).

Given the amount of teacher time children with ADHD often consume, it is important to consider whether teachers are trained to handle their difficult classroom behaviors. A handful of studies have examined the amount of training educators have received about ADHD (Barbaresi & Olsen, 1998; Bussing et al., 2002; Jerome et al., 1994). Bussing et al. (2002) explored formal teacher training and sources of knowledge in a sample of 365 teachers in Florida. When asked about formal training during their educational career, exactly half of the sample reported not receiving any formal ADHD

training. An alarming 65% of the teachers stated they had obtained only "brief training" about ADHD.

In terms of sources of knowledge about ADHD, the authors found that experience with children with ADHD was related to the amount of reading completed about ADHD, such that those teachers who had more students with the disorder had read more articles and books about ADHD. Similar research examined teacher experience with ADHD in a Minnesota sample of 44 elementary school teachers (Barbaresi & Olsen, 1998). The majority of teachers in this sample (77%) reported receiving no instruction about ADHD in their undergraduate training at their various universities. Moreover, since the completion of requirements for their teaching certificate, most sought additional ADHD-related training, presumably because either the teachers themselves or their principals felt such training was necessary. The study did not examine how competent the teachers felt in dealing with children with ADHD; however, an overwhelming majority of the teachers (98%) believed that they could benefit from further training on ADHD.

Jerome et al. (1994) compared knowledge about ADHD in two samples: American teachers from New York and Florida and Canadian teachers. Information on the university attendance of teachers was not reported in the study; however, 18% of the total sample was certified in special education. Results indicated that 99% of the Canadian sample and 89% of the American sample received little to no instruction about ADHD during their study to become a teacher. Despite the fact that 47% had obtained master's degrees, most of the sample (89% of Canadian teachers and 92% of American teachers) remained untrained in ADHD classroom behavior management following their university education; however, similar to those teachers included in Barbaresi and Olsen's (1998) study, the teachers in this sample maintained a strong interest in receiving

additional training: 97% of Canadians and 98% of Americans indicated that they would like additional ADHD training.

All of these studies indicate there is very little training regarding ADHD within the educational curriculum for teachers. Nevertheless, teachers commonly encounter children with ADHD in their classrooms and wish to receive more training, especially with regard to strategies for managing ADHD behavior in the classroom.

Teacher Knowledge and Experience

A quantitative study by Guerra and Brown (2009) examined the knowledge levels of middle school teachers in south Texas in relation to ADHD. There were 23 respondents (21.5%) who had taught 6-10 years, 19.6% who had taught 11-15 years, and 16.8% who had taught more than 20 years.

While most of the teachers were beginners with only 1-5 years of experience, the respondents were spread evenly across the five levels of teacher experience. Descriptive data analysis of the demographic variables concluded that most of the teachers had 4-year degrees and no coursework related to ADHD. It appeared that teachers are obtaining teacher certification without instruction or training on ADHD.

The survey results were reported for three subscales of teacher knowledge of ADHD, symptoms/diagnosis of ADHD, and treatments for ADHD. The descriptive analysis results reported the mean scores ranged from 46% to 66%. The general knowledge score was a mean score of 66.7%, and the treatment knowledge score was a mean score of 56.9%. The differences among each of the means were statistically significant at the .05 level.

The data analysis indicated that the levels of knowledge of ADHD among middle school teachers in south Texas are low, with scale knowledge scores ranging from 46% to

66%. General knowledge had the lowest score from the study sample. These findings highlight the fact that institutions of higher education and school districts have not been successful in the special education preparation of middle school teachers. The large amount of resources in time, effort, staff development, curriculum, and implementation appear to have little impact on teacher preparedness to deal specifically with students with ADHD. The results of this study show a need for professional development needs of middle school teachers.

Based on the review of literature, children with ADHD are known to experience persistent behavioral and social problems as well as significant academic difficulties that adversely affect their school performance (Montague, Enders, & Castro, 2005).

Cultural Knowledge

Graczyk et al. (2005) explored how different techniques benefitted certain groups over others. Urban educators from a large, urban Midwestern school district were surveyed on their perception of commonly recognized intervention strategies for teaching students with ADHD. Fifty-two percent of the students in the district were African-Americans, 35% were Latino, and 9% were White.

Three hundred and fifty-eight pupil personnel service professionals (PPS) participated in the study. Of the participants, 22% were school psychologists, 37 school social workers, and 41 were school counselors. Forty-six of the PPS participants were White, 38% were African-American, and 13% were Latino. Eighty-four percent of the PPS participants had a master's degree.

Of the 70 teachers included in the study, 66% were White, 19% were African-American, and 8% were Latino. Sixty percent of the teachers held a bachelor's degree. Their school's principal selected all of the teachers. In both categories, at least 83% of

the participants were females.

The participants were given a survey where they rated how confident they would be in managing hypothetical behaviors commonly exhibited by students with ADHD on a 4-point Likert scale with 1 meaning not at all, 2 just a little, 3 pretty much, and 4 symbolizing very much. They also rated the effectiveness of commonly used intervention strategies using a 5-point Likert scale where 0 equaled cannot rate, do not know the strategy; 1 equaled never effective; 2 equaled sometimes effective; 3 equaled usually effective; and 4 symbolized always effective.

The types of intervention were classroom interventions which included moving the child's seat near the teacher, modifying the student's curriculum, peer tutoring, cooperating learning groups, individual reward systems, classroom reward systems, loss of privileges, school-to-home daily reports, and conferences with parents. The second type was mental health services which included individual counseling and family counseling. The third type was medication. The fourth was ineffective interventions which included restricted diets, restricted sugar intake, biofeedback, and isolation in the classroom.

Among the PPS participants, there was a moderately positive correlation between their self-confidence in managing a situation and the effectiveness for the classroom interventions and mental health services strategies. The teacher's self confidence in managing a situation was moderately correlated with the effective ratings.

The findings of the survey showed that urban educators, both the PPS participants and teachers, had little confidence in the effectiveness of commonly used intervention strategies. For the PPS subjects, the more exposure they had with ADHD, the more likely they were to feel positive about the intervention strategies, especially medication.

The teacher knowledge in ADHD was negatively associated with their perceptions that the strategies were effective. Both groups expressed "just a little confidence" in their ability to manage a scenario of symptoms commonly exhibited by students with ADHD.

Graczyk et al. (2005) realized that the principal's nomination of teachers could have influenced teacher response and neither group was asked the number of students with ADHD they have had in their classroom or case list. Graczyk et al. suggested that teachers who were nominated by their administration may feel obligated to give a certain or correct response to please their principal. Reid, Casat, Norton, Anastopolous, and Temple (2001) continued this investigation by studying how cross-cultural differences may result in how students with ADHD are assessed and treated. The researchers wondered if the same norms could be used for students from different ethnic backgrounds.

Three thousand nine hundred and ninety-eight students participated in the study; 2,124 of them were African-American, while 1,874 were White. The students attended nine urban elementary schools in the southeast section of the U.S. Their ages ranged from five to 11. One hundred seventy-eight general education teachers also took part in the study by being surveyed on the before-mentioned study. Approximately 76% of the teachers were White women, 18% were African-American women, 4.4% were White men, and 1.1% were African-American men. Teachers completed a version of the IOWA CONNERS scale on each eligible child in their class.

The IOWA CONNERS is used to assess the dimensions of Inattention and Over activity (symbolized by IO) and Aggression/Defiance (symbolized by WA).

An IO mean for African-American girls was 3.94 and African-American boys was found to be 6.71. Conversely, the White girls were rated at 2.02, and the White boys

were rated at 4.14. On the WA subscale, the mean for African-American girls was 2.85 and 4.44 for African-American boys. The mean ratings for White girls were 0.95 and 2.08 for White boys.

Using the WA scale, there was a significant age by ethnicity difference. There was an increase of approximately two points for African-American males aged five to 11, while the White boys were considerably lower. The White girls were lower as well, the younger they were. For both IOWA subscales, teachers rated the African-American students higher that the Whites, meaning they exhibited more inattention, over activity, aggression, and defiance. However, African-American teachers perceived there to be less difference between the ethnicities as their results for both ethnicities were closer to each other.

Reid et al. (2001) pointed out that no empirical data on actual student performance or behaviors were collected in this study, thus all the findings were strictly based on teacher perception of the student. These may be accurate, but the teachers could also have misjudged the students.

With a growing number of students with ADHD in the classroom, teachers and parents have different levels of knowledge on the disorder. The before-mentioned studies showed that there are different levels of special education knowledge within the schools, among both special education and general education teachers. Most teachers had not received adequate training about ADHD nor the strategies required to successfully teach diagnosed students. Since both Miranda et al. (2002) and Vereb and DiPerna (2004) concluded that teacher training improved student performance and behavior, a lack of training ultimately hurts the students diagnosed with ADHD. Similarly, parent knowledge also resulted in lower levels of disruptive behavior in students (Bor, Sanders,

& Markie-Dadds, 2002).

Meeting the needs of students diagnosed with ADHD is a task that all teachers face or will face during their teaching career. This task may be more difficult because the characteristics and symptoms of ADHD do not correspond with classroom expectations. Since ADHD is being diagnosed more frequently, teachers must become more knowledgeable of ADHD and learn strategies to effectively engage ADHD students.

As literature supports, a strong sense of teacher confidence plays a major role in student success. Efficacious teachers have strong beliefs that they can bring about a change in student learning and attitude (Cubukcu, 2008; Ross, 1994; Scharlach, 2008). If a teacher believes that all students in a classroom are capable of learning, the teaching style will involve rich standards, quality, and sensitivity to student learning styles, regardless of the population the teacher serves (Muijs & Reynolds, 2002). A teacher with these qualities and beliefs is highly efficacious and can be successful in teaching any student.

The key to more ADHD students becoming successful in the classroom is the effectiveness of the teacher and his or her ability to teach all students at a high level regardless of social background or any type of disorder such as ADHD (Cagle, 1998; Cooper, 1979). In order for this to happen, teachers must be trained at the collegiate level in ADHD and training should continue at the elementary, middle, and high school level. This will build positive teacher efficacy when it comes to teaching students with this disorder, which in turn will lead to greater student success.

Chapter 3: Methodology

Numerous theories and debates exist regarding ADHD and how to successfully manage students with this disorder in a classroom. Some research suggests that properly medicating a student will produce the desired academic and behavior affect (DuPaul & Stoner, 2003). Other studies theorize that an extremely controlled environment that does not offer the physical space or opportunity to become distracted will produce positive results (DuPaul & Stoner, 2003). Further studies suggest that parents, teachers, and school administrators do not know enough about ADHD and its symptoms to be able to successfully engage and teach students with ADHD. This clearly implies that additional research is needed to know why ADHD students' degrees of success vary from teacher to teacher.

The purpose of this research was to examine teacher self-efficacy when teaching and managing students with ADHD. One independent variable, teacher knowledge, was analyzed to determine the effect this factor has on the dependent variable, self-efficacy.

Participants

Elementary, middle, and high school teachers from three rural-urban school districts served as the target sample for this study. District 1 had over 15,500 students. District 2 had an enrollment of approximately 9,000 students. District 3's student enrollment was near 32,000. Two of the districts were rural, and one was urban.

For the purpose of this study, elementary was defined as Grades K-5; middle school, 6-8; and high school, 9-12. The researcher contacted the superintendents and the directors of elementary and secondary education in each school district requesting permission to recruit teachers to participate in this research. Once approval was granted, elementary and secondary principals were contacted via email (see Appendix A) asking

permission to send out the survey to their classroom teachers. Interested teachers were asked to complete the survey packet that took approximately 45 minutes to complete. All kindergarten through twelfth-grade classroom teachers were eligible to participate. Copies of all surveys were sent via email to the principal prior to the data collection day. Teachers were informed that any information given on their surveys would be kept confidential and that their principals would not see the results (see Appendix B).

Instruments and Procedures

Background information/experience. To obtain background information and experience of teacher participants, a demographic questionnaire (see Appendix C) was created and distributed as a hard copy and through survey monkey, an online survey software. Data gathered from the demographic questionnaire were analyzed using a statistical software program, Statistical Package for the Social Sciences (SPSS).

Descriptive statistics were used to describe gender, age, and ethnic identification. Participants also answered what grade level they taught. This information is shown in Chapter 4 in Table 1. Tables 2 and 3 of Chapter 4 show how many years the participants had taught and their highest level of education; but more importantly, teachers indicated how many students they have had medically identified as ADHD. They were given ranges to select from: none, 1-5, 6-10, 11-15, and more than 15. They were also asked how many students they suspected were ADHD using the exact same ranges. These data are displayed in Table 4 of Chapter 4. Teachers were also asked the number of college courses taken that pertained to ADHD and the number of ADHD trainings or professional development they had attended since becoming employed as a teacher using the following ranges: none, 1-3, 4-6, 7-10, more than 10. The distribution of ADHD training is illustrated in Table 5 of Chapter 4. To complete the demographic survey, teachers

were asked to indicate the kind of support their school offered teachers for helping students with ADHD. Teachers were able to mark all that applied from a menu of supports. They also had the opportunity to write out additional supports offered if it was not listed on the menu. Teachers indicated if they had a desire to receive more training for teaching students with ADHD. Figure 1 in Chapter 4 shows the school support services offered at the schools.

Teacher knowledge and training. To access teacher knowledge of ADHD, teachers completed KADDS (see Appendix C; Sciutto et al., 2000). This rating scale consisted of 39 items and was designed to measure teacher knowledge and misperceptions about ADHD as it related to symptoms and diagnostic criteria, treatment, and general information about the origin and course of the disorder. Participants read statements about ADHD and rated each statement as true, false, or don't know. The items on the questionnaire referred to both positive and negative indicators of ADHD in order to account for a negative response bias. Sample items from the survey included "ADHD children are frequently distracted by extraneous stimuli" (symptoms), "Antidepressant drugs have been effective in reducing symptoms for many ADHD children" (treatment), and "In order to be diagnosed with ADHD, the child's symptoms must have been present before age 7" (general information; KADDS; Sciutto et al., 2000). Surveys were scored according to the number of questions answered correctly. The higher the percent correct, the higher the teacher knowledge of ADHD.

The results of teacher overall knowledge of ADHD are displayed in Chapter 4 in Figures 2, 3, and 4. Figure 2 shows the percent of correct answers on KADDS; Figure 3 shows the percent of incorrect answers; and Figure 4 displays the percent of don't know answers. In order to examine teacher knowledge within each of the three subscales of

KADDS, their responses were grouped. The first subscale consisted of 15 items assessing general knowledge about the nature, causes, and outcome of ADHD. The second subscale of KADDS included nine items assessing symptoms and diagnoses of ADHD. The final subscale of KADDS included 15 items assessing the treatment of ADHD. The percentage of the correct, incorrect, and don't know responses on the KADDS subscales are presented graphically in Figures 5, 6, 7, 8, 9, and 10. These figures are located in the results chapter. Table 6 illustrates the breakdown of ADHD subscale don't know responses versus incorrect responses.

A correlation analysis was computed to investigate the relationship between teacher level of knowledge of ADHD and their prior training and experience with ADHD. The correlation analysis was conducted to examine the relationship between teacher levels of knowledge of ADHD and theirs level of confidence in teaching a student with ADHD. In each analysis, a positive, negative, or no correlation was revealed between teacher level of knowledge of ADHD and their prior training and experience with ADHD as well as the relationship between teacher level of knowledge of ADHD and their level of confidence in teaching a student with ADHD. These data are shown in Table 7 of Chapter 4.

Cultural knowledge. The next component of research examined cultural knowledge. Teacher expectations of students with ADHD were assessed using teacher responses to questions based on a series of vignette descriptions of hypothetical children with ADHD symptoms (see Appendix C). Following the vignette were questions that teachers answered based on their opinions as teachers. Each vignette described children with symptoms of inattentiveness and hyperactivity. The vignette described elementary school aged children who meet the criteria for ADHD-Combined Type. Following is a

sample vignette from KADDS:

> Daniel is a 9-year old boy. Daniel's teacher describes him as always moving, from squirming in his seat to wandering around the classroom, chattering endlessly instead of doing his work. His teacher says that Daniel doesn't do what she asks him to do, such as cleaning out his desk despite constant instructions. He starts work late because he often misplaces what he needs. While doing his work, he gets sidetracked into doing something else and turns in his work without checking. According to his parents, Daniel never seems to focus on what they say or ask of him, even when they repeat themselves. His behavior with others his age is similar. He often intrudes on what they are doing, and doesn't wait for his turn or concentrate on what's happening in their games. (Scuitto et al., 2000, p. 85)

To account for differences in teacher expectations for behavior based on gender (Pisecco, Huzinec, & Curtis, 2001; Sciutto, Nolfi, & Bluhm, 2004), the presentation of vignettes was counterbalanced for gender of the child described in the vignette. Half of the teachers read about a girl first, followed by a boy. The other half of teachers read about the boys before the girls. Ten questions accompanied each vignette with only names changed to match the child in the vignette. Teachers provided a rating of each question on a Likert-type scale from 1 to 9. One meant not at all, 5 meant moderate, and 9 meant extremely. The first seven questions assessed teacher expectations of how severe the ADHD symptoms were, and the next two questions assessed the perceived impact the student's behavior had on the teacher such as frustration and stress related to teaching the student. The tenth question assessed teacher confidence in implementing an intervention with the child.

Teacher responses from the vignette were computed by summing the scores from each vignette. Responses are indicated in Table 8 of Chapter 4. Results show the number of respondents who believed the behavior was "not at all serious," "moderately serious," or "extremely serious."

Teacher self-efficacy. The final set of data examined teacher self-efficacy. Teacher self-efficacy was measured using the short form of the Teachers' Sense of Efficacy Scale (TSES; see Appendix C; Tschannen-Moran & Hoy, 2001). This 12-item scale measured teacher efficacy in three areas: student engagement, instructional strategies, and classroom management. Each question began with some variation of "How much can you do to . . ." or "How well can you. . . ." Sample questions from each subscale include "How much can you do to motivate students who show low interest in school?" (engagement); "To what extent can you craft good questions for your students? (instructional); "How much can you do to get children to follow classroom rules?" (management; TSES; Tschannen-Moran & Hoy, 2001).

Teachers rated their confidence levels on a Likert-type scale from 1 to 9 with anchors of 1 (nothing), 3 (very little), 5 (some influence), 7 (quite a bit), and 9 (a great deal) in their ability to address student engagement, instructional strategies, and classroom management when teaching students with behavioral challenges such as ADHD.

Ratings from TSES were summed to create a total mean score with higher scores representing high levels of efficacy. In addition, a regression analysis was performed to test for a correlation between all independent variables: demographics, teacher knowledge of ADHD, cultural knowledge and the dependent variable, and teacher self-efficacy. Results are shown in Table 9. Table 10 displays a correlation between ADHD

knowledge and teacher efficacy in student engagement, instructional practices, and classroom management. Figures 11, 12, and 13 show frequencies of participant levels of engagement, instructional practices, and classroom management.

Assumptions

The assumptions from this research were that teachers revealed their true beliefs and experiences and were transparent when responding to the open-ended questions. Another assumption was that researcher bias would have a minimum role in the findings of this study.

Limitations

One limitation to the study was the reliability of self-report. Information given from participants cannot be verified, as all information given was to remain confidential and could not be shared with anyone.

Delimitations

This study was restricted to teacher efficacy and ADHD students. Conclusions are not to be extended beyond teacher efficacy and ADHD students.

Human Participants and Ethical Precautions

To ensure the protection of the participants in this study, the researcher followed the guidelines as outlined by the Institutional Review Board (IRB). The first consideration involved collecting signed informed consent statements from all participants. The following safeguards were outlined in the informed statement:

- Participant real names were not to be used in the data collection or in the written report.
- All materials would be safely secured in a file cabinet to safeguard confidentiality.

- All materials would be destroyed upon completion of the study.
- Participation in this study was strictly on a voluntary basis. No children were spoken to or questioned. Participants had the right to withdraw from this study at any time without penalty.

Summary

Research indicates that at least one student in every classroom has ADHD and suffers from symptoms such as inattention, hyperactivity, daydreaming, interrupting, fidgeting, and blurting out. Teachers are often trying to manage these behaviors and teach these students without sufficient knowledge or training on ADHD.

Teacher efficacy, the belief in one's ability to impact student learning, is thought to influence academic success. This dissertation explores the teacher efficacy of teachers serving students with ADHD in the elementary, middle, and high school settings utilizing a quantitative methods approach.

Although educational researchers have studied teacher efficacy, few have studied teacher efficacy as it pertains to teaching students with ADHD. This study addressed how teachers of ADHD students perceive their ability and confidence to impact their students' learning based upon their knowledge of ADHD. Teacher knowledge was analyzed to determine the effect it has on self-efficacy.

The participants consisted of elementary teachers from rural-urban school districts. Background information and demographic surveys were created and distributed as a hard copy and through survey monkey. Data gathered were analyzed using SPSS.

To access teacher knowledge of ADHD, teachers completed KADDS. A correlation analysis was computed to investigate the relationship between teacher levels of knowledge of ADHD and their prior training and experience with ADHD. Cultural

knowledge was assessed using a series of vignette descriptions of hypothetical children with ADHD symptoms. Teachers answered questions after each vignette based on their opinions as teachers.

The final set of data examined teacher self-efficacy. It was measured using the short form of TSES. This 12-item scale measured teacher efficacy in three areas: student engagement, instructional strategies, and classroom management. Teachers rated their confidence levels on a Likert-type scale from 1 to 9. A regression analysis was performed to test for a correlation between teacher knowledge of ADHD and teacher self-efficacy.

The assumption from this research was that teachers were transparent when responding to the open-ended questions. Another assumption was that researcher bias had a minimal role in the findings of this study. The study was limited because it could not be generalized to all school districts across the state. Another limitation to the study was the reliability of self-report. Information given from participants could not be verified as all information given was to remain confidential and could not be shared with anyone.

This study was restricted to teacher efficacy and ADHD students. Conclusions are not to be extended beyond teacher efficacy and ADHD students. The findings of this study will generate a holistic understanding of teacher efficacy and thus benefit multiple audiences in the educational community. This further understanding of teacher efficacy can then be used in support of positive school reform for teachers and students. Also, the results of this research will be beneficial to teacher education programs. Finally, this research will illuminate a better understanding of teachers who work with ADHD students and promote further research and recognition of teachers who teach students

with ADHD.

Chapter 4: Results

Overview

According to CDC (2007), ADHD is one of the most common mental health disorders of childhood. Teachers of ADHD students usually face major hardships in the classroom. An ADHD student's behavior may take precedence over any academic lesson a teacher may have planned. Because the number of students diagnosed with ADHD keeps rising, teachers are likely to teach a large number of these students during the course of their careers. If a teacher is lacking self-confidence, he or she may be unprepared to successfully handle all of the challenges that children with ADHD present in the classroom, especially in terms of their behavior.

This chapter contains the results of the study from the demographic data, teacher knowledge surveys, cultural knowledge vignettes, and TSES. Statistical information is presented with both narrative and visual representations. This study addressed if teacher knowledge of ADHD affects their self-efficacy in student engagement, instructional strategies, and classroom management when teaching these students. Three subscales of teacher knowledge were examined: general knowledge of ADHD, symptoms and diagnosis, and treatment of ADHD. Each subscale was calculated to determine if there was a correlation between teacher knowledge of ADHD and a teacher's sense of efficacy. Also, a combined score was calculated to determine if there was a correlation between teacher knowledge and its influence on teacher ability and confidence to impact their students' learning.

Description of Participant Data

The study survey was dispersed to participants via email and as a hard copy. Data were collected over a 3-week period. The participation goal for this study was 100

participants. A total of 123 teachers participated, exceeding the desired goal.

The first step was for participants to provide their demographic information. This information was used to further investigate a correlation between all demographic variables. The target population was K-12 teachers in three rural-urban districts in North Carolina. The number of responses from participating school districts included 75 responses from School District A, 32 from School District B, and 16 from School District C. Eighty-six of the participants taught elementary school, 21 taught middle school, and 16 taught high school. Of the 123 participants, 120 were women and three were men. Their ages ranged from 21-64, with a mean age of 38.4. The survey asked teachers to identify their ethnicity. One hundred and nine were White (non-Hispanic), 12 were African-American, and two were Latino.

An analysis of all quantitative data collected in the demographic questionnaire, teacher knowledge scales, and the teacher efficacy scale provided an early glimpse of the teachers' sense of efficacy. Descriptive statistics were used to describe gender, age, and ethnic identification through the use of Excel. A cluster analysis of participants was done to analyze demographic variations among groupings and any possible effects these variations may have on teacher knowledge and teacher efficacy. Descriptive statistics were used to present quantitative descriptions of the data. These analyses revealed the participants' answers in connection to their personal attributes. One hundred twenty-one participants reported taking zero to two college courses that pertained to ADHD. One participant reported taking three classes that addressed ADHD, and one person reported having four.

Participants by Level Taught

Table 1 shows demographic data for all participants by grade level taught. Of the

123 participants, 86 (70%) were elementary teachers, 21 (17.2%) taught middle school, and 16 (13%) taught high school. The grade span taught was kindergarten through twelfth grade with a mean grade level of 4.28. This data analysis was especially useful in creating a picture of who the participants were.

Table 1

Breakdown of Participants by Grade Level Taught

Elementary n=86		Middle School n=21		High School n=16	
Kindergarten	17	Sixth	12	Ninth	6
First	8	Seventh	4	Tenth	3
Second	12	Eighth	5	Eleventh	5
Third	18			Twelfth	2
Fourth	16				
Fifth	15				

Participants by Years of Experience

Teachers were asked to identify how long they had been teaching. Their selections were broken down into incremental categories of 0-5 years, 6-15 years, and 16-30+ years. Of the 123 participants, 27 responded they had been teaching 0-5 years, 37 stated 6-15 years, and 59 indicated 16-30+ years. Twenty-six percent of elementary teachers had taught 0-5 years, 14% of middle school teachers had taught 0-5 years, and only 13% of high school teachers had taught 0-5 years. The next increment was 6-15 years. Twenty-nine percent of elementary teachers had taught between 6 and 15 years; 43% middle, and 19% high. The final increment was between 16-30+ years. These data revealed an experienced group of teachers participated in the survey as 45% of elementary teachers, 43% of middle school teachers, and 69% of high school teachers fell into this category. Table 2 shows a breakdown of participants by years of experience.

Table 2

Breakdown of Participants by Years of Experience

Years of Experience	Elementary n=86	Middle n= 21	High n=16
0 to 5	22 (26%)	3 (14%)	2 (13%)
6 to 15	25 (29%)	9 (43%)	3 (19%)
16 to 30+	39 (45%)	9 (43%)	11 (69%)

Participants by Level of Academic Attainment

The majority of those surveyed, 80 (65%), indicated bachelor's degree as their highest level of educational attainment. A master's degree was held by 32 (26%) of the respondents. The remaining 9% reported a bachelor's degree plus some graduate coursework and a master's degree with further graduate coursework. Of the 80 participants who selected bachelor's degree, 57 were elementary teachers, 12 taught middle school, and 11 taught high school. Of the 32 respondents who had master's degrees, 22 were elementary teachers, six taught middle school, and four taught high school. None of the participants held doctoral degrees. Five elementary teachers held bachelor degrees plus some additional graduate work, three middle school teachers held bachelor degrees and some graduate work, and one high school teacher reported having a bachelor's degree and some graduate coursework. Two elementary teachers held master's degrees with additional graduate coursework.

The average class size was 20.84 students. Teachers reported a mean teaching load of 28.74 students. There was no significant difference in the levels of educational attainment of teachers and their knowledge of ADHD as each educational attainment level of participants only answered an average of 50% of the questions correctly. Overall, teacher knowledge of ADHD was low which was a concern since teachers are on the front lines of recognizing and referring students with ADHD for treatment.

Educational attainment can be seen in Table 3.

Table 3

Breakdown of Participants by Educational Attainment

Education	Elementary n=86	Middle n=21	High n=16
Bachelors	57 (66%)	12 (57%)	11 (69%)
Masters	21 (26%)	6 (29%)	4 (25%)
Doctorate	0 (0%)	0 (0%)	0 (0%)
Bachelors plus graduate courses	5 (6%)	3 (14%)	1 (6%)
Masters plus graduate courses	2 (2%)	0 (0%)	0 (0%)

Description of Response Item Data

Medically Diagnosed versus Nondiagnosed

Teachers were given ranges to choose from to indicate how many students they had taught who were medically identified as ADHD. The ranges were as follows: none, 1-5, 6-10, 11-15, and more than 15 students. Nine teachers reported they had not taught any students with ADHD, 59 reported they had taught 1-5 students, 32 had taught 6-10 students with ADHD, 13 had taught 11-15 students, and 10 reported they had taught more than 15 students. These data showed that teachers had taught a mean of 7.20 students who were medically identified with ADHD. They were also asked how many students they suspected were ADHD using the exact same ranges. Twenty-two reported none, 48 responded 1-5, 23 had taught 6-10 suspected ADHD students, 10 reported 11-15, and 20 stated they had taught more than 15 ADHD students who they suspected were ADHD but not identified. This was a mean of 8.42 students per teacher who exhibited ADHD behaviors but were not medically identified.

Those teachers teaching over 10 years had the highest number of identified students with ADHD during the course of their career with a mean of 10.9 students. Those teaching less than 10 years reported a mean of 2.1 students medically diagnosed

with ADHD. In addition, participants who had been teaching over 10 years had a mean of 11.5 students who they felt were ADHD but had not been diagnosed. Teachers teaching less than 10 years had a mean of 2.75 students not diagnosed. Not surprisingly, elementary teachers had a higher mean of diagnosed students (7.79). Middle school teachers had a mean of 5.00 students, and high school teachers had a mean of 6.44 students. When it came to nondiagnosed students, high school teachers reported a mean of 9.25 students followed by elementary 8.27, then middle school at 7.00 students. See Table 4.

Table 4

Distribution of Medically Diagnosed versus Nondiagnosed Students

Students	Medically Diagnosed	Nondiagnosed
0	9	22
1-5	59	48
6-10	32	23
11-15	13	10
15+	10	20

Mean = 7.20 medically diagnosed *Mean = 8.42 not medically identified*

ADHD Training

Teachers were also asked the number of college courses they had taken that addressed ADHD in any capacity. They were also asked to indicate the number of ADHD trainings or professional development they had attended since becoming employed as a teacher using the following ranges: none, 1-3, 4-6, 7-10, more than 10. Ninety-one teachers (74%) reported they had not taken any courses pertaining to ADHD while in college. Twenty-five students (20%) indicated they had taken one college course, and seven teachers (6%) had taken two courses.

Most participants had in common a lack of training in ADHD. The same type of range was used to determine the number of workshops or trainings teachers have attended

since becoming employed as a teacher. Ninety participants (39%) had not received any training or staff development on ADHD; 67 teachers (54%) had attended one to three workshops. Seven teachers (5%) indicated four to six trainings; one teacher reported seven to 10 trainings; and no one reported having more than 10 trainings since becoming employed as a teacher.

Table 5

Distribution of ADHD Training

Number of Trainings	ADHD College Courses	ADHD Workshops
0	91 (74%)	90 (39%)
1-3	32 (20%)	67 (54%)
4-6	0	7 (5%)
7-10	0	1 (2%)
10+	0	0

School Support Services

To complete the demographic survey, teachers were asked to indicate the kind of support their school offered teachers for helping students with ADHD. Teachers were able to mark "yes or no" on each menu of support:

-Special education services outside the classroom

-Special education services in the classroom

-Teaching assistant/paraprofessional

-Consultation with guidance counselor

-Consultation with school psychologist

-Consultation with special education teacher(s)

-Other (please specify)

Teachers also had the opportunity to report additional supports offered if they were not listed. The top three areas of support offered at the school level were support

from the school's guidance counselor (94%), special education services outside the regular classroom (77%), and special education services in the regular classroom (69%). See Figure 1.

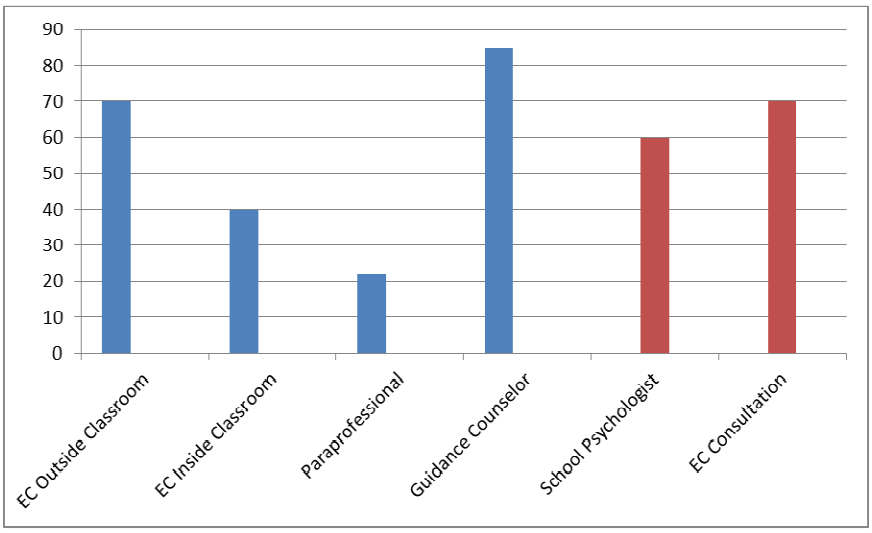

Figure 1. School Support Services.

All teachers, whether elementary, middle, or high, ranked special education services outside the classroom as the top area of support for ADHD students. Teachers were also given the opportunity to indicate if they had a desire to receive more training on teaching students with ADHD. Ninety-three percent of teachers surveyed stated that they would be interested in receiving more training on ADHD. This was to be expected since 73% indicated they had zero classes in college that pertained to ADHD and a combined total of 93% had received 0-3 trainings in ADHD since becoming a teacher. Only 3% indicated they would not be interested in learning about ADHD, and 3% stated they already knew enough about ADHD. Of those interested in training, teachers expressed the most interest in "learning strategies on how to keep students on task" (29%), followed by "teaching students to cope with ADHD and not use as a crutch" (25%). Other topics of interest included learning more about ADHD teaching methods

(19%), classroom management (11%), how to get parents more engaged (10%), and why the number of ADHD students are on the rise (2%).

Teacher Knowledge and Training

To assess teacher knowledge of ADHD, teachers completed KADDS (Sciutto et al., 2000). This rating scale consisted of 39 items and is designed to measure teacher knowledge and misperceptions about ADHD as it relates to symptoms and diagnostic criteria, treatment, and general information about the origin and course of the disorder. The average score of each subscale ranges between 47-81% (Jerome et al., 1994). Participants read statements about ADHD and rated each statement as true, false, or don't know. The items on the questionnaire referred to both positive and negative indicators of ADHD in order to account for a negative response bias.

The first subscale of KADDS was general knowledge. It consisted of 15 items that assessed participant general knowledge of ADHD. A mean percentage of 54.7 answered all questions correctly with an SD of 10.77. Figure 1 shows these results. These findings were consistent with previous studies that found the mean percentages for correct answers on ADHD knowledge questionnaires of teachers range from 48% to 76% (Jerome et al., 1994; Kos et al., 2004; Ohan et al., 2008; Sciutto et al., 2000). A mean percent incorrect was 12.3 (SD=8.35). The general knowledge percent of don't know was 32.9 (SD=11.60). These are shown in Figures 2, 3, and 4.

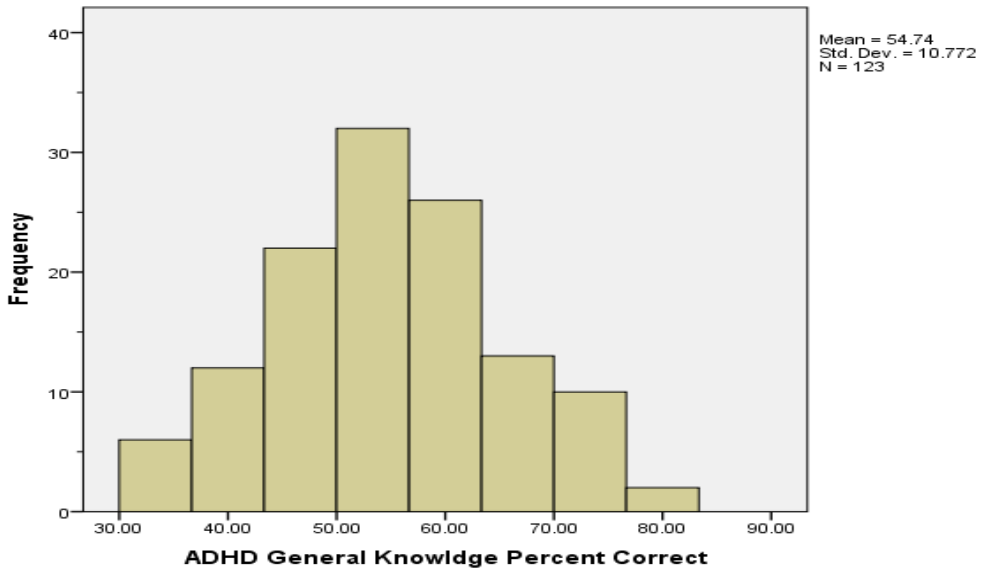

Figure 2. Frequency Histogram for General Knowledge Percent Correct.

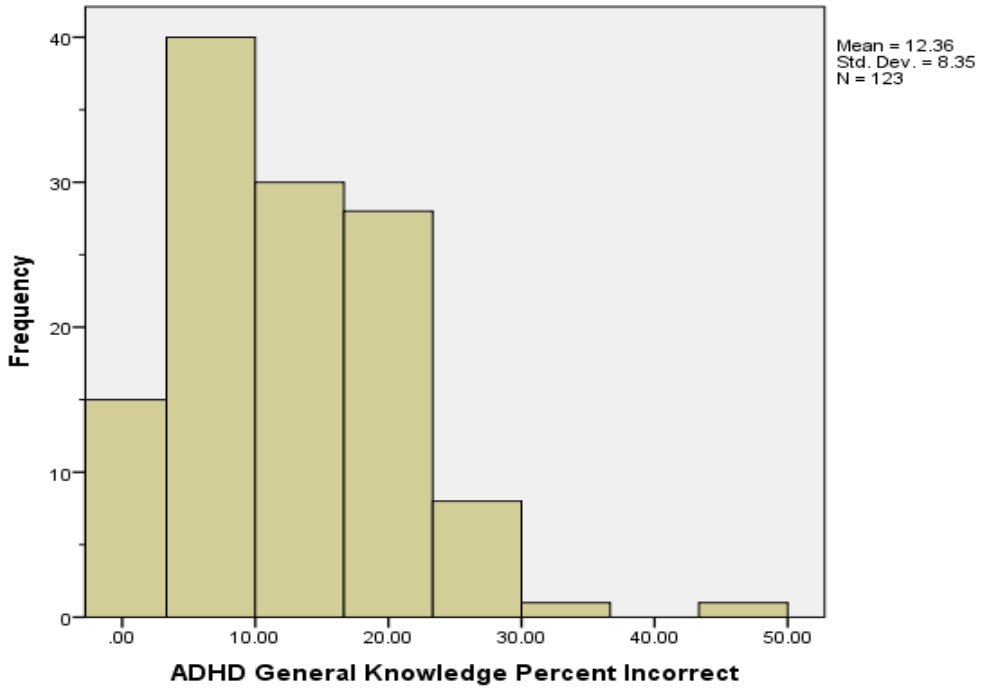

Figure 3. Frequency Histogram for General Knowledge Percent Incorrect.

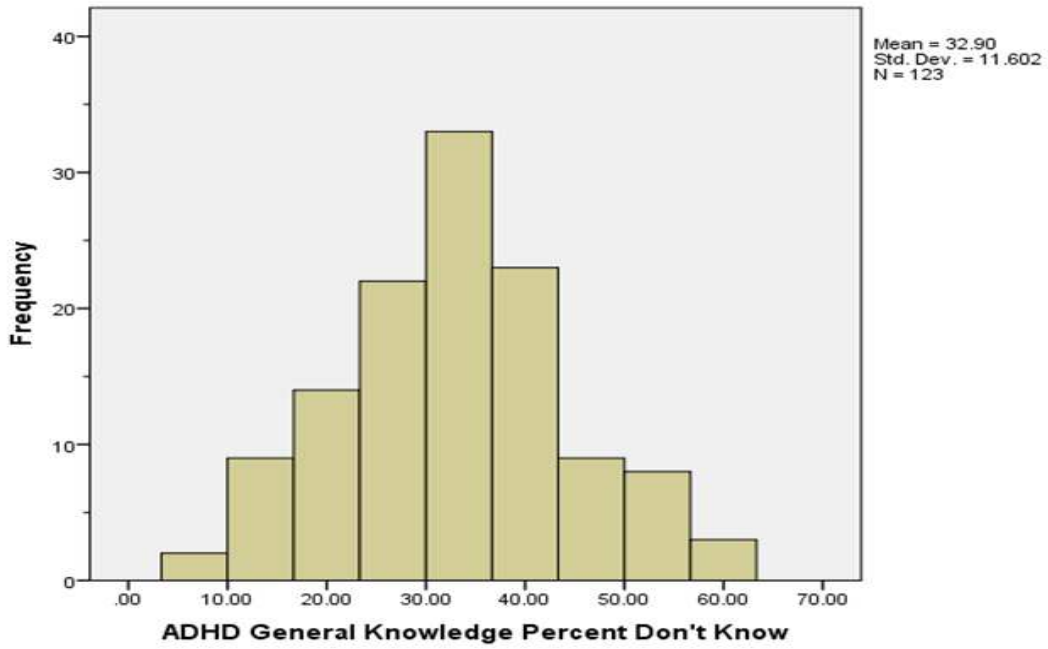

Figure 4. Frequency Histogram for General Knowledge Percent Don't Know.

The second subscale addressed symptoms and diagnosis of ADHD. Participants answered nine questions from this subscale. The mean percentage answered correctly was 51.5 (SD=15.33) as shown in Figure 5. A mean percentage of 12.9 (SD=9.68) was answered incorrectly. This is illustrated in Figure 6. A mean percentage of 35.5 (SD=15.49) responded don't know as shown in Figure 7.

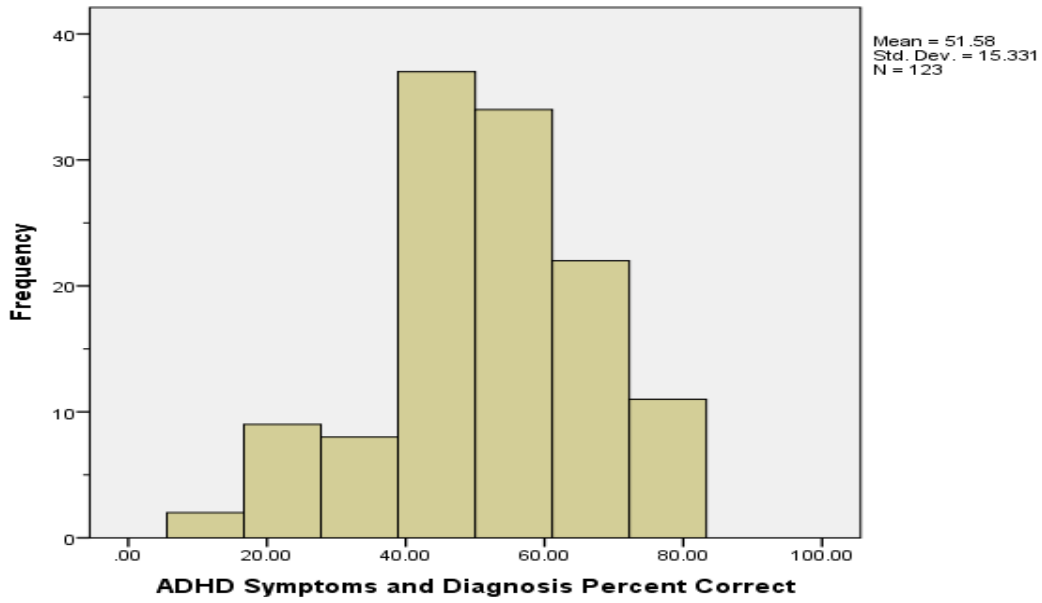

Figure 5. Frequency Histogram for Symptoms and Diagnosis Percent Correct.

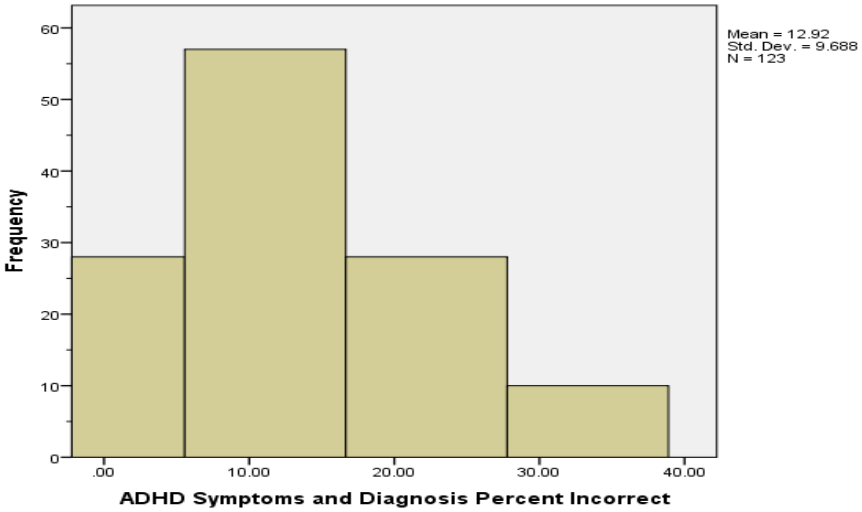

Figure 6. Frequency Histogram for Symptoms and Diagnosis Percent Incorrect.

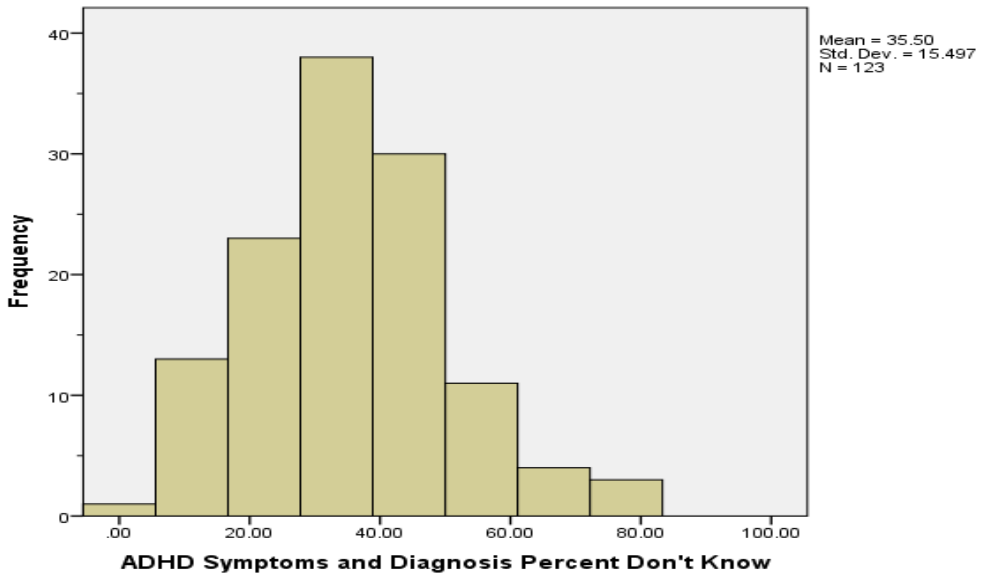

Figure 7. Frequency Histogram for Symptoms and Diagnosis Percent Don't Know.

The final subscale addressed treatment of ADHD. It consisted of 15 questions. Of the 123 participants, a mean percentage of 42.4 (SD=12.11) answered the nine questions correctly. See Figure 8. The mean percentage for incorrect answers was 14.2 (SD=7.58) which is illustrated in Figure 9. The mean percentage for don't know was 43.1 (SD=12.72) as shown in Figure 10.

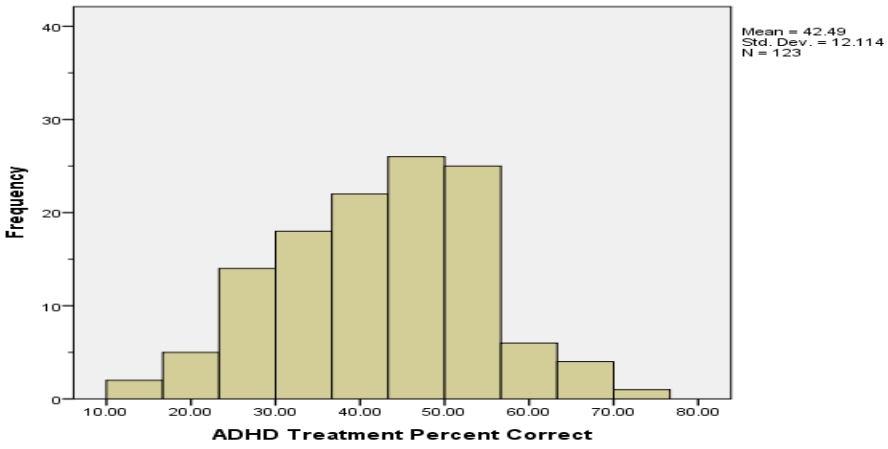

Figure 8. Frequency Histogram for Treatment Percent Correct.

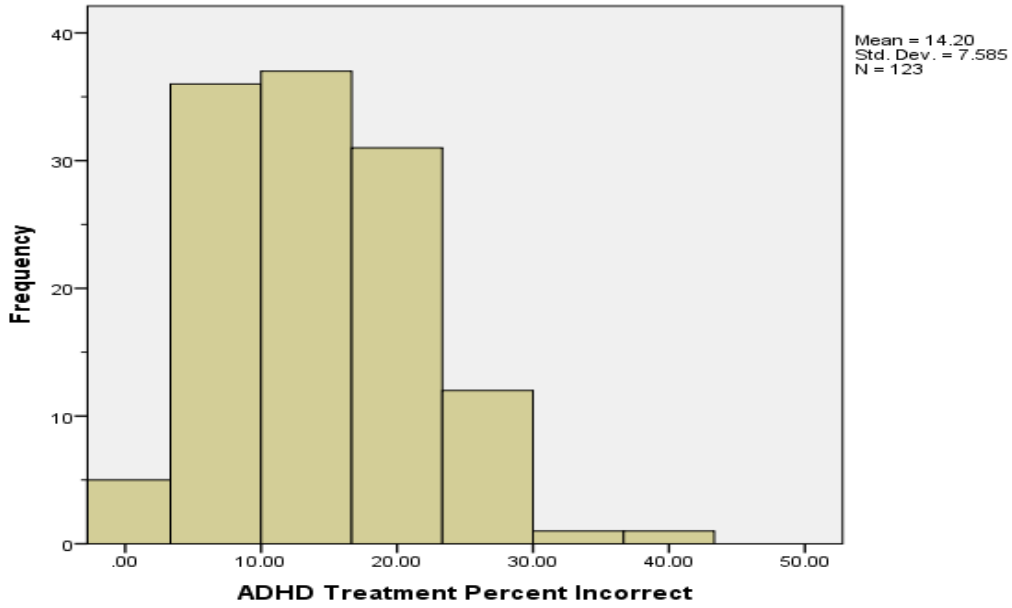

Figure 9. Frequency Histogram for Treatment Percent Incorrect.

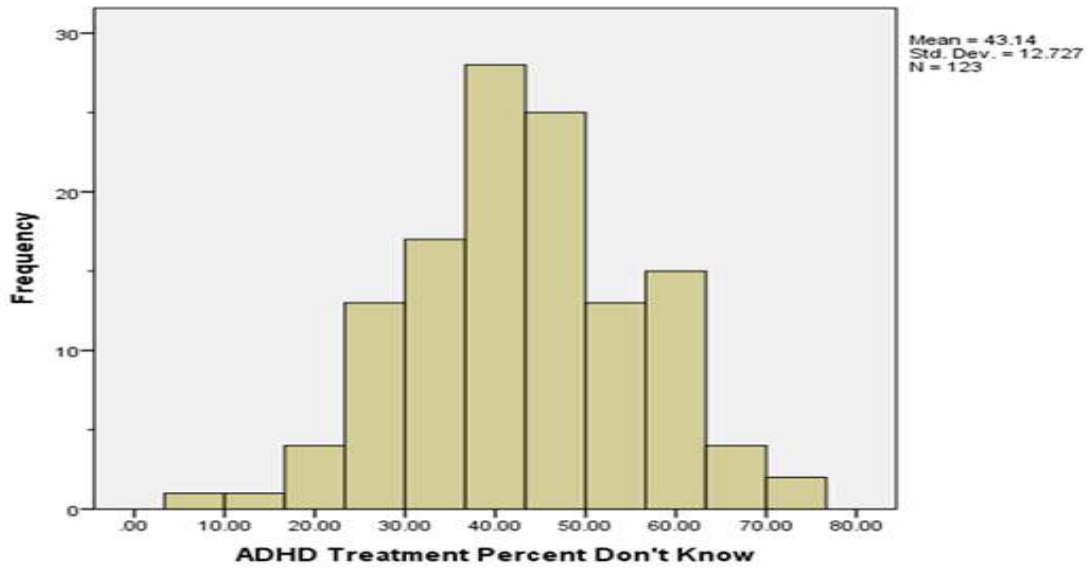

Figure 10. Frequency Histogram for Treatment Percent Don't Know.

Participants had a greater percentage of don't know answers than incorrect answers on each of the three subscales.

Table 6

Breakdown of ADHD Subscale Don't Know Responses versus Incorrect Responses

	Don't Know	Incorrect
General Knowledge	32.9%	12.3%
Symptoms and Diagnosis	35.5%	12.9%
Treatment	43.1%	14.2%

As previously stated, the average mean percent correct for each subscale is between 47-81%. The data showed that teacher responses fell in the low average range for general knowledge (54.7) and symptoms and diagnosis (51.5), but they scored below average on treatment of ADHD with a mean percent correct of 42.4.

Also, these scores indicate teachers may need more training on ADHD especially in the area of treatment. In fact, most participants reported don't know on questions pertaining to treatment of ADHD. Question number 2 on KADDS measured teacher knowledge of treatment of ADHD: "Current research suggests that ADHD is largely the result of ineffective parenting skills." Fifty-three participants responded don't know. Twenty-nine answered false, and 41 responded true. The correct answer was false, but only 29 participants answered correctly. On this particular question, high school teachers had the greatest percentage of don't know at 69%. Middle school was next with 62% answering don't know, followed by only 29% of elementary teachers responding don't know. Another question that measured treatment was, "Antidepressant drugs have been effective in reducing symptoms for many ADHD children." Only 10 responded don't know. Of the 10, five were high school and five were middle school teachers. All elementary teachers responded with the correct answer of true. It appears that elementary teachers may have more knowledge about the treatment of ADHD than middle school and high school participants; but as a whole, there were not any significant demographic

differences.

Table 7

ADHD Knowledge versus Demographics

Demographics	Correlation R	R Squared	Significant?
Age	-0.039	0.002	No
Ethnicity	0.036	0.001	No
Grade	0.252	0.064	No
Years at Present School	0.051	0.003	No
Total Years Teaching	-0.024	0.001	No
Educational Level	-0.093	0.009	No
Classroom Size	0.100	0.010	No
Total Students	0.198	0.039	No
Diagnosed Students	0.025	0.001	No
Nondiagnosed	0.061	0.004	No
ADHD Courses	0.200	0.040	No
ADHD Training	-0.093	0.009	No
Support	0.000	0.000	No

There was no significance between participant knowledge of ADHD and their demographics as shown in Table 7.

Cultural Knowledge

The next component of research examined cultural knowledge. Teacher expectations of students with ADHD were assessed using teacher responses to questions based on a series of vignette descriptions of hypothetical elementary and secondary children with ADHD symptoms. These descriptors were developed by Ohan et al. (2008) to ascertain teacher perceptions of students who exhibit ADHD behaviors. Each vignette described children with symptoms of inattentiveness and hyperactivity. The vignette described elementary and secondary school aged children who met the criteria for ADHD-Combined Type. Following the vignette were questions that teachers answered based upon their beliefs. Teachers provided a rating for each question on a Likert-type scale from 1 to 9. Numbers 1-3 indicated not at all serious, 4-6 indicated moderately

serious, and 7-9 indicated extremely serious. Teacher responses were computed by totaling the scores from each vignette. Excel software was used to compute a total score by each school level: elementary, middle, and high. Scores that fell in the range of 42 and below represent not at all serious behavior, scores 43-97 equaled moderately serious, and scores 98 and above meant teachers thought the behavior was extremely serious. Table 8 shows these data by school levels.

Table 8

Vignette (Cultural Knowledge) Scores

Total Score	Elementary	Middle	High
42 and below (not serious)	0	0	0
43-97 (moderately serious)	86 (100%)	21 (100%)	16 (100%)
98 and above (extremely serious)	0	0	0

All participants reported the behaviors presented in the vignettes were moderately serious. None of the participants thought the behavior was not at all serious and none indicated extremely serious.

Question 2 asked how much impairment student behavior problems cause in daily life. Most responded moderately (4, 5, or 6) with a mean score of 4.96 (SD=.751). Teachers also felt like student behavior was moderately disruptive to others around them with a mean score of 4.87 (SD=.665). Other questions asked if student behavior interfered with academic progress. Teachers rated this item with a mean score of 5.33 (SD=.647) which was still in the moderate range. Teachers reported they would be moderately frustrated with this student in class, and they were moderately confident in their abilities to implement an effective behavior plan for the student with a rating of 5.07 (SD=.65).

These data suggest that teachers recognize off-task behavior of ADHD students,

but the majority do not think it is severe or extremely serious. In addition, teachers are somewhat confident in their ability to manage these ADHD behaviors.

Teacher Self-Efficacy

The final set of data examined teacher self-efficacy. Teacher self-efficacy was measured using the short form of TSES. This was a 12-item scale that measured teacher efficacy in three areas: student engagement, instructional strategies, and classroom management. These subscales exemplified the teacher's personal and general teaching efficacy. A correlation analysis was performed to test for significance between teacher knowledge of ADHD and self-efficacy in student engagement, instructional practices, and classroom management.

The four questions in the student engagement subscale relate to participant efficacy for student engagement and motivation. One question from this subscale asked, "how much can you do to motivate students who show low interest in school work?" The next subscale measured was in instructional strategies. One example from this subscale was question 5 that asked the participant to rate the extent he or she could craft good questions for their students. The last subscale measured classroom management. The four questions in the classroom management subscale pertained specifically to classroom disruptions and student behavior. Question 1 asked, "How much can you do to control disruptive behavior in the classroom."

Participants were asked to read each statement and indicate their confidence levels on a Likert-type scale from 1 to 9 with anchors of 1-2 (nothing), 3-4 (very little), 5-6 (some influence), 7-8 (quite a bit), and 9 (a great deal) in their ability to address student engagement, instructional strategies, and classroom management when teaching students with behavioral challenges such as ADHD. Questions 2, 3, 4, and 11 addressed student

engagement with 78.5% responding they had either quite a bit or a great deal of influence in keeping students engaged (M=7.2, SD= 1.2). Questions 5, 9, 10, and 12 dealt with instructional strategies. Participants overwhelmingly felt confident in their instructional abilities as 99% (M=7.3, SD=1.2) responded they had quite a bit and a great deal of confidence in implementing effective instructional strategies. The last set of questions, numbers 1, 6, 7, and 8 assessed classroom management with 90.5% (M=6.7, SD=1.2) indicating quite a bit and a great deal of confidence in managing student behavior.

Data from TSES is shown for each of the three subcategories.

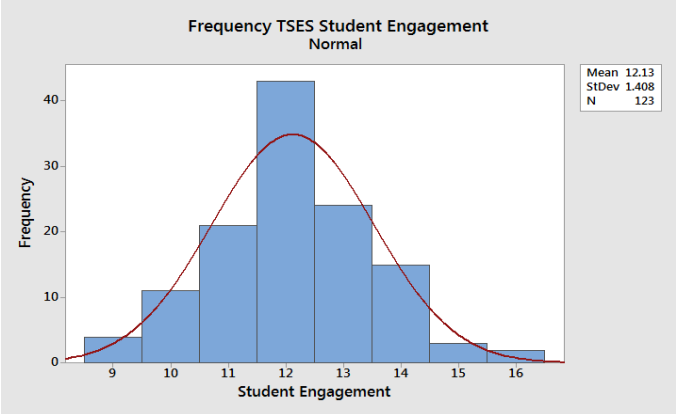

Figure 11. Frequency Histogram for Student Engagement.

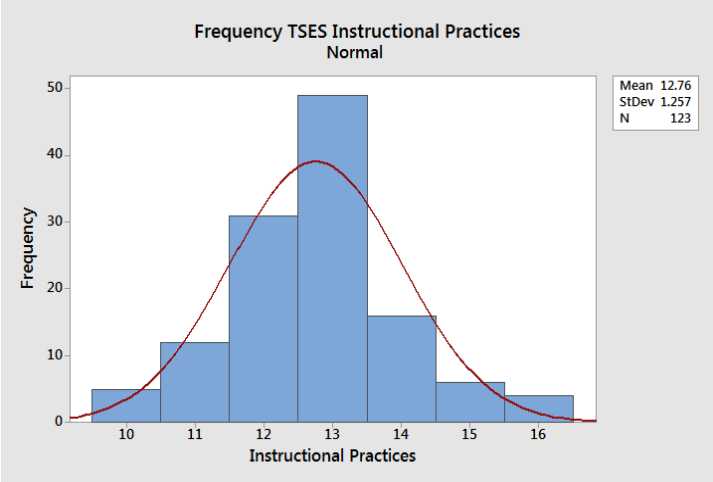

Figure 12. Frequency Histogram for Instructional Practices.

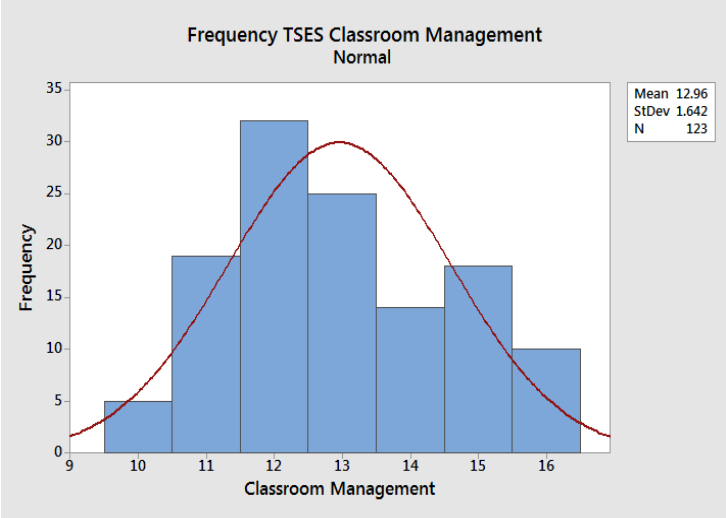

Figure 13. Frequency Histogram for Classroom Management.

The first subscale, student engagement, had an average mean of 7.2. Quantitative findings in the instructional practices subscale were near the high range (7.3). The most notable finding between the three domains was in classroom management. Classroom management had the lowest mean of 6.7. The distribution of each histogram was fairly uniform. Perhaps this is due to each subscale having only four questions.

Overall, teachers exhibited mid-high to high efficacy on all three domains; but

these scores still indicate teachers had some uncertainties in their efficacy as no domain had 100% high efficacy. There were no noticeable differences among demographic categories. Table 9 shows that demographics did not influence a teachers' efficacy.

Table 9

Teachers Sense of Efficacy versus Demographics

Demographics	Correlation R	R Squared	Significant?
Age	-0.130	0.017	No
Ethnicity	-0.154	0.024	No
Grade	-0.009	0.000	No
Years at Present School	-0.072	0.005	No
Total Years Teaching	-0.127	0.016	No
Educational Level	-0.072	0.005	No
Class Size	-0.038	0.001	No
Total Students	-0.087	0.008	No
Diagnosed Students	-0.079	0.006	No
Nondiagnosed Students	-0.023	0.001	No
ADHD Courses	-0.021	0.000	No
ADHD Training	-0.003	0.000	No
Support	-0.136	0.018	No

Responses to individual items on TSES offer a detailed examination of the group means. The means of items 1 and 6 were the highest in the classroom management subscale (3.48, 3.25). Item 7, which measures classroom management, was the lowest rated in this subscale (3.02). The means for items 9 and 10, "How much can you use a variety of assessment strategies," and "To what extent can you provide an alternative explanation or example when students are confused," were the highest in the instructional strategies subscale (3.54, 3.44). Item 12, "How well can you implement alternative strategies in your classroom," which measures instructional strategies, was the lowest rated in this subscale (3.33). And finally, the means for items 4 and 3, "How much can you do to help your students value learning," and "How much can you do to get students to believe they can do well in school work," were the highest for student engagement

(3.17, 3.16). Item 2, "How much can you do to motivate students who show low interest in school work," which measures student engagement was the lowest rated in this subscale (2.85). Overall, all participants believed they could do quite a bit to a great deal to positively influence classroom management, instructional strategies, and student engagement.

A correlation analysis was performed to test for significance between teacher knowledge of ADHD and self-efficacy in student engagement, instructional practices, and classroom management.

Table 10

ADHD Knowledge and Teacher Efficacy

	Correlation R	R Squared	Significant?
General Knowledge versus Student Engagement	-0.125	0.016	No
General Knowledge versus Instructional Practices	-0.008	0.000	No
General Knowledge versus Classroom Management	0.195	0.038	No
Cultural Knowledge versus Student Engagement	-0.055	0.038	No
Cultural Knowledge versus Instructional Practices	0.065	0.004	No
Cultural Knowledge versus Classroom Management	0.019	0.000	No

The data in Table 10 showed no significant correlation between ADHD knowledge including cultural knowledge and teacher efficacy in student engagement,

instructional practices, and classroom management.

Summary

This study addressed the question of how teacher knowledge of ADHD affects their self-efficacy in student engagement, instructional strategies, and classroom management. This chapter described the findings of this research. Three subscales of teacher knowledge were examined: general knowledge of ADHD, symptoms and diagnosis, and treatment of ADHD. Each subscale was calculated to determine if there was a correlation between teacher knowledge of ADHD and a teacher's sense of efficacy. Also, a combined score was calculated to determine if there was a correlation between teacher knowledge and its influence on teacher ability and confidence to impact student learning. The next chapter examines these findings. Implications for the field of education, suggestions for future research, and perceived limitations are also presented.

Chapter 5: Conclusion

Overview

ADHD students can be difficult for teachers to manage and teach. These students often fidget, call out, and disrupt class on a daily basis which is detrimental to the students' academic development. Studies have found that teachers frequently have misconceptions of ADHD which can create inaccurate expectations and worry (Sutherland et al., 2005). A teacher's low self-efficacy has been related to stress and burnout in the classroom. Teachers with minimum knowledge of ADHD are often at a higher risk for stress and burnout. Although theoretical evidence exists that teacher self-efficacy may relate to knowledge of ADHD, evidence-based studies are lacking in this area. Sciutto et al. (2000) conducted a study where there was a positive correlation between ADHD knowledge and teacher self-efficacy. Another study found a negative correlation between self-efficacy and ADHD knowledge (Ohan et al., 2008). These findings were both based on a single question about confidence on a survey.

The main objective of this research was to analyze the relationship teacher knowledge of ADHD had on teacher self-efficacy using KADDS and vignettes to measure teacher knowledge. Self-efficacy was assessed by TSES.

Chapter 1 displayed the researcher's interest in examining how teachers of ADHD students perceived their efficacy. Because of the complexity involved in educating students with ADHD, teachers of these students often face major obstacles in the classroom. Research has shown that teacher efficacy is related to and predictive of various components related to academic success.

In Chapter 2, a review of literature pertinent to the study was introduced. Bandura's (1977) theory of self-efficacy identified teacher efficacy as a type of self-

efficacy – the product of a social cognitive process in which people form beliefs about their own capacity to perform at a given level of competence (Goddard et al., 2000; Henson et al., 2001). This serves as the foundation for the construct of teacher efficacy in the domain of education. This chapter established the need for further research on teacher knowledge of ADHD and its impact on self-efficacy.

Chapter 3 identified the methods and procedures of the study. This research was conducted using a quantitative method approach. Quantitative data were collected through KADDS, vignettes, TSES, and a general demographic survey.

Chapter 4 revealed key findings that surfaced through research related to teacher knowledge and the impact on teacher sense of efficacy in (a) student engagement, (b) instructional practices, and (c) classroom management. The quantitative findings uncovered that teachers had mid-to-high range efficacy in these three domains and in general as according to TSES. Mean scores on TSES showed that even though scores in general were high, the teachers had the overall lowest efficacy in student engagement and the highest in instructional practices followed closely by classroom management. Teacher knowledge was not found to be significantly correlated to a teacher's self-efficacy as referenced in Table 10.

This chapter is an examination of the results presented in Chapter 4. It concludes with the limitations, implications, and directions for future research of the study.

Description of Participant Data

Demographics of the participants were analyzed for the purpose of identifying possible generalizability in gender, age, race, years of teaching, training, etc. The target population was Grades K-12 across three rural-urban school districts in North Carolina. The number of responses from participating school districts included 75 responses from

School District A, 32 from School District B, and 16 from School District C. Eighty-six of the participants taught elementary school, 21 taught middle school, and 16 taught high school. Of the 123 participants, 120 were women and three were men. Their ages ranged from 21-64 with a mean age of 38.4. The survey asked teachers to identify their ethnicity. One hundred and nine were White (non-Hispanic), 12 were African-American, and two were Latino.

The data revealed that an experienced group of teachers participated in the study. Forty-five percent of elementary teachers had been teaching between 16 and 30+ years; 43% middle school teachers and 69% high school teachers fell into this category. The majority of those surveyed (65%) indicated bachelor's degree as their highest level of educational attainment. A master's degree was held by 26% of the respondents. The remaining 9% reported bachelor's plus some graduate coursework and master's with further graduate coursework. The average class size was 21 students. There was no significant difference in the level of education of teachers and their knowledge of ADHD. Overall, teacher knowledge of ADHD was low which was a concern since teachers are on the front lines of recognizing and referring students with ADHD for treatment.

Teachers were given a range to choose from to indicate how many students they had taught who were medically identified as ADHD. The data showed that teachers had taught a mean of 7.20 students who were medically identified as ADHD; but they had taught a mean of 8.42 students who exhibited ADHD behaviors but were not medically identified. This implies that there are several students who are ADHD who have not been medically identified for whatever reason. Teachers were also asked the number of college courses they had taken that pertained to ADHD and the number of ADHD trainings or professional development they had attended since becoming employed as a

teacher. Seventy-four percent reported they had not taken any courses pertaining to ADHD while in college. Twenty percent indicated they had taken one college course, and 6% had taken two courses. Most participants had a lack of training in ADHD in common.

Student Engagement

The first question examined the relationship between a teacher's level of knowledge of ADHD and its impact on teacher efficacy in student engagement. Academic engagement is defined as a variable of a student's education that can be altered by the teacher. It is also the degree of attention, curiosity, interest, and passion that students show when they are learning or being taught. If the student is not engaged with the teacher's instruction, it is difficult for learning to take place. Students with ADHD may struggle with sustaining active engagement while in school. Moreover, their behavior may interfere with their classmates' learning as well as the teacher's instructional plan for the day. This type of behavior could possibly discredit a teacher's efficacy.

Question 1 was explored through the use of results from KADDS and TSES as well as vignettes. KADDS consisted of three subscales with the first subscale being general knowledge. Teachers scored a mean percentage of 54.7 correct. The second subscale addressed symptoms and diagnosis of ADHD. The mean percentage answered correctly was 51.5. The final subscale addressed treatment of ADHD. A mean percentage of 42.4 was answered correctly. Relatively speaking, these scores were not high when compared to previous studies. In fact, the treatment score (42.4) fell below the national average of 47-81% (Jerome et al., 1994).

Another tool used to measure teacher knowledge was vignettes. These vignettes

were used to examine teacher expectations of students with ADHD using teacher responses to questions based on a series of vignette descriptions of hypothetical children with ADHD symptoms. Teachers felt that the scores from the student behaviors on the vignettes were moderately serious, yet TSES showed that teachers felt pretty efficacious in student engagement as the quantitative findings suggest that the teachers were to some extent able to perform tasks successfully in this domain because the mean percentage correct was 7.2 which was in the mid-high range. This score was actually above the Tschannen-Moran and Johnson (2011) study. Neither set of survey data yielded significant correlations to teacher efficacy.

Instructional Practices

The second research question examined how a teacher's level of knowledge of ADHD impacts a teacher's efficacy in instructional practices. Research shows that perceptions of positive feelings during teaching indicate and promote self-assurance and anticipation of future success (Bandura, 1977). Conversely, negative feelings during teaching and feelings of inferiority precipitate future failure. Therefore, these perceptions led the teacher to experience success or failure related to these experiences.

This question was explored through use of results from KADDS, vignettes, and TSES. According to the quantitative findings, 99% of teachers felt they could do quite a bit or a great deal to implement effective instructional strategies. Means calculated in instructional practices efficacy in this study (7.3) were a little lower than the Tschannen and Johnson (2011) study (7.54). Again, there was no correlation between teacher knowledge of ADHD and self-efficacy as well as cultural knowledge and self-efficacy.

Classroom Management

The third research question examined how a teacher's level of knowledge of

ADHD impacted a teacher's efficacy in classroom management. Research refers to classroom management as a combination of discipline, classroom management, and socialization/self-discipline (Hoy, 2000). As referenced in the previous chapter, the teachers' mean in classroom management was 6.7. For comparison purposes, classroom management had the lowest mean in this study. This was much lower than the average mean of the Tschannen and Johnson (2011) study which was 7.3. This suggests teachers may struggle when it comes to handling defiant ADHD students.

In terms of teacher efficacy regarding classroom management, teachers were less confident of their ability to set behavior expectations, rules, and routines and handling defiant, disruptive, and noisy behavior specifically. No correlation existed between teacher knowledge of ADHD, cultural knowledge, and self-efficacy. Perhaps this noncorrelation was due to each subscale having only four questions. If more questions were involved, the distribution most likely would be skewed.

Limitations of the Study

Several limitations were recognized in this study. First, the data gathered were based on individual teacher responses and whether or not they chose to be completely honest in their responses. Information given from the participants could not be verified. Second, teacher perception of their efficacy may not represent the teacher's actual effectiveness. Someone else may view the teachers' efficacy in a different light than the teachers actually see themselves; however, the main focus of this study was not whether the teachers were seen as successful by peers or superiors but whether they perceived themselves as being successful when educating ADHD students. Self-efficacy involves a perception of competence rather than an actual level of competence (Bandura, 1997). Third, the participants in this study were primarily Caucasian, female elementary

teachers. Although race and gender demographics are factors to control for, the literature indicates that teacher self-efficacy beliefs do not typically vary depending on race and gender (Tschannen-Moran & Hoy, 2001). Therefore, sample size does not necessarily pose a threat to generalizability on the basis of race or gender. Lastly, participants had a limited amount of training on ADHD. This limitation of knowledge limited correlations across demographics.

Implications for Education

This study has important implications for current and prospective teachers as well as teacher education programs at colleges and universities. Based on the results of the study, all teachers may benefit from professional development and training on ADHD considering the overall scores on teacher knowledge of ADHD were not high. If the teacher knowledge scores would have been higher, there would have most likely been some correlations. From the data, it appeared that teachers were more knowledgeable at answering general knowledge and symptoms and diagnosis questions because many times the questions in these subscales relate to what the teachers directly observe in their classroom on a daily basis.

First, this research expressed the importance of the school environment on a teacher's efficacy when teaching ADHD students. Thirty-nine percent of the teachers reported they had not had any training or staff development on ADHD since becoming a teacher. Fifty-four percent had only attended one to three workshops. This suggests that the school districts and individual schools need to plan trainings that address ADHD in order to better prepare teachers to effectively educate these students. It was also evident that more support is needed at the school as teachers reported that the top three areas of help at the school level were the guidance counselor and the EC teacher servicing these

students outside the classroom as well pushing into the regular classroom to serve ADHD students. From the survey, 93% of teachers expressed a desire for additional training. Teachers need to be given allotted time to participate in professional development opportunities so they are not experiencing further frustration over time management issues.

Second, beginning teachers need to be better prepared to teach ADHD students. Teacher education programs at colleges and universities generally prepare teachers for the "regular" student; however, teachers end up teaching a variety of students with multiple needs such as the ADHD student. The fact that 73% of respondents reported they had not taken any courses on ADHD while in college is alarming. Twenty percent had only taken one college course. As the needs of the students change, so should the teacher education programs.

Future Research

Research should be expanded to include ADHD student perceptions of their learning experiences. Students should be surveyed to assess their perception of their teacher and to ascertain their attitudes toward school in general. This additional research could contribute to a more comprehensive understanding of teacher efficacy as well as provide a more meaningful understanding of the ADHD student. Second, additional research on this study should be conducted utilizing a mixed-methods approach. This study was strictly quantitative. Qualitative interviews of teachers, students, and parents could be useful in offering insight into improving teaching in a variety of situations.

Summary

This quantitative study examined how a teacher's level of knowledge of ADHD impacted a teacher's efficacy in student engagement, instructional practices, and

classroom management. The current findings were inconclusive about how cognitive factors such as teacher knowledge of ADHD impact self-efficacy. Teaching students with ADHD can be challenging and exhausting. Improving teacher knowledge and understanding of ADHD will ultimately improve teacher self-efficacy when educating these students. More attention and research is needed that focus on ADHD and self-efficacy. The current findings were inconclusive about how cognitive factors such as self-efficacy and teacher knowledge of ADHD are related to their behavior with children in the classroom.

Recommendations

Based on the results, only 54.7% of teachers surveyed answered all questions correctly on KADDS. Because of this, the researcher would recommend that teachers and administrators explore ways to learn more about the symptoms of ADHD and how to effectively teach ADHD students. The researcher would also recommend workshops and in-service training on how to manage defiant behavior of ADHD students and how to effectively provide interventions. The data showed 39% of practicing teachers had not received any training on ADHD, and 54% had only attended 1-3 trainings. For this reason, the researcher would recommend school districts provide administrators, teachers, and support staff annual training that addresses the three subscales of KADDS.

The first part of the professional development should clearly define ADHD and give a detailed overview of the illness. The second part of the training would be an overview of the symptoms and diagnosis of ADHD. The characteristics of the ADHD student should be studied in detail by identifying common triggers to misbehavior of ADHD and how to confront these behaviors. Steps to follow when seeking a medical diagnosis of ADHD should be presented to participants based upon each district's policy.

The final piece of professional development should be on the treatment of ADHD. Medication and other nonmedicated options to treat ADHD would be included in this section. Best practices for understanding students with ADHD as well as providing research-based intervention techniques to address academic and behavioral challenges within this population should be reviewed. If districts followed through on this recommendation, teacher knowledge of ADHD would increase.

In addition, the researcher would recommend a more diverse population when conducting future studies because participants in this research were predominately White females. Of the 123 participants, 86 were elementary teachers, 21 taught middle school, and only 16 taught high school. Therefore, a larger sampling of secondary teachers is needed when conducting future research on this topic. The researcher's final recommendation would be for colleges and universities to organize programs on ADHD and include these programs in their curriculum since a majority (74%) reported they had not taken any courses pertaining to ADHD in college. If these recommendations occur, educational reform will take place.

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Appendix A

Letter to Principals

Dear Principal:

The purpose of this letter is to invite teachers at your school to participate in a unique study being conducted by myself, Pamela Merritt, a doctoral student at Gardner-Webb University. The purpose of this research is to better understand the effect teacher efficacy has on students with attention deficit hyperactivity disorder (ADHD). Teachers would be participating anonymously and no data would be linked back to your school. This study will examine teacher factors, such as knowledge about ADHD and beliefs in how to handle challenges in the classroom. I would like to recruit teachers in grades K-6 to complete a short packet of surveys. With your permission, teachers would be asked to complete the surveys online through survey monkey or request a hard copy.

I look forward to hearing back from you. Please contact me at 704-481-8001 or email at merrittpam13@yahoo.com if you have questions.

Sincerely,

Pamela Merritt

Appendix B

Information Sheet for Participation in Research Study

What Effect does Teacher Efficacy have on Attention Deficit Hyperactivity Disorder Students with Behavioral Issues?

Dear Teacher:

You are being asked to participate in a research study being conducted by Pamela Merritt, graduate student at Gardner-Webb University, as a requirement to obtain her Ed.D. You are being asked to participate because I am trying to learn more about teachers' experiences in the elementary classroom with children who have problems of inattention and hyperactive behavior. This study will take about 45 minutes of your time. If you agree to participate, you will be asked to complete three surveys and answer some questions following brief descriptions of fictional children. The survey packet will include questions about your knowledge of Attention-Deficit/Hyperactivity Disorder (ADHD), your feelings about various teaching tasks, and your opinions about the behavioral, academic, and social difficulties of six fictional children described in brief vignettes. As part of the survey, you will be asked to provide some personal, or demographic, information about yourself such as gender, age ethnicity, grade taught, teaching employment history, and experience working with children with ADHD. Your answers to the questions are completely confidential and anonymous, and will in no way be linked back to you.

If you have questions about this study, please contact Pam Merritt at XXXXX or email XXXXXXXXXXXX.

Appendix C

Surveys

DEMOGRAPHIC QUESTIONNAIRE

1) Gender:

_____Female _____Male

2) Age:

_____years

3) Ethnic/Cultural Group (check all that apply)

_____Asian/ Asian American _____African American/ Black

_____Latino/Latina _____Native American

_____White (non-Hispanic)/ Caucasian _____Other (please specify:_____)

4) Which grade level do you currently teach?

___K ___1st ___2nd ___3rd ___4th ___5th ___6th

5) How long have you taught in your current school?

_____years _____months

6) How long have you been employed as a teacher (in any school)?

_____years _____months

7) What is your highest level of education?

_____BA/ BS _____MA/ MS _____Ed.D/ PHD/ other

_____BA/ BS + some graduate coursework _____MA/ MS + further graduate coursework

8) What is your current class size? (If you teach more than one class, choose the class period with the largest class size).

_____students

9) If you teach more than one class, how many total students do you currently teach?

_____students OR _____I only teach one class

10) Including all of your years employed as a teacher up until today, how many of your students have/had been given a diagnosis of ADHD that you know about?

___none ___1-5 ___6-10 ___11-15 ___more than 15

11) Including all of your years employed as a teacher up until today, how many of your students do you suspect might have had/have ADHD but were not diagnosed to your knowledge?

___none ___1-5 ___6-10 ___11-15 ___more than 15

12) How many college or graduate courses have you taken that covered ADHD-related material (if any)?

___none ___1-3 ___4-6 ___7-10 ___more than 10

13) How many workshops or trainings have you attended since becoming employed as a teacher that covered ADHD-related material (if any)?

___none ___1-3 ___4-6 ___7-10 ___more than 10

14) What kind of support does your school offer teachers for helping students diagnosed with ADHD? (Please mark all that apply).

_____Special education services outside the classroom

_____Special education services in the classroom

_____Teaching assistant/ paraprofessional

_____Consultation with guidance counselo5r

_____Consultation with school psychologist

_____Consultation with special education teacher (s)

_____Other (please specify: _____)

15) How interested would you be in receiving more training for teaching children with ADHD?

_____I would definitely be interested in any kind of training.

_____I would be interested as long as the training was brief.

_____I already feel that I know enough about ADHD.

_____I would not be interested in learning about ADHD.

16) What would you be most interested in learning more about in relation to ADHD?

_____

_____

_____

KADDS

Please answer the following questions regarding Attention-Deficit/Hyperactivity Disorders (ADHD). If you are unsure of an answer, respond Don't Know (DK), DO NOT GUESS.

True (T), False (F), or Don't Know (DK) (circle one):

1. T F DK Most estimates suggest that ADHD occurs in approximately 15% of school age children.

2. T F DK Current research suggests that ADHD is largely the result of ineffective parenting skills.

3. T F DK ADHD children are frequently distracted by extraneous stimuli.

4. T F DK ADHD children are typically more compliant with their fathers than with their mothers.

5. T F DK In order to be diagnosed with ADHD, the child's symptoms must have been present before age 7.

6. T F DK ADHD is more common in the 1st degree biological relatives (i.e. mother, father) of children with ADHD than in the general population.

7. T F DK One symptom of ADHD children is that they have been physically cruel to other people.

8. T F DK Antidepressant drugs have been effective in reducing symptoms for many ADHD children.

9. T F DK ADHD children often fidget or squirm in their seats.

10. T F DK Parent and teacher training in managing an ADHD child are generally effective when combined with medication treatment.

11. T F DK It is common for ADHD children to have an inflated sense of self-esteem or grandiosity.

12. T F DK When treatment of an ADHD child is terminated, it is rare for the child's symptoms to return.

13. T F DK It is possible for an adult to be diagnosed with ADHD.

14. T F DK ADHD children often have a history of stealing or destroying other people's things.

15. T F DK Side effects of stimulant drugs used for treatment of ADHD may include mild insomnia and appetite reduction.

16. T F DK Current wisdom about ADHD suggests two clusters of symptoms: One of attention and another consisting of hyperactivity/impulsivity.

17. T F DK Symptoms of depression are found more frequently in ADHD children than in non-ADHD children.

18. T F DK Individual psychotherapy is usually sufficient for the treatment of most ADHD children.

19. T F DK Most ADHD children "outgrow" their symptoms by the onset of puberty and subsequently function normally in adulthood.

20. T F DK In severe cases of ADHD, medication is often used before other behavior modification techniques are attempted.

21. T F DK In order to be diagnosed as ADHD, a child must exhibit relevant symptoms in two or more settings (e.g., home, school).

22. T F DK If an ADHD child is able to demonstrate sustained attention to video games or TV for over an hour, that child is also able to sustain attention for at least an hour of class or homework.

23. T F DK Reducing dietary intake of sugar or food additives is generally effective in reducing the symptoms of ADHD.

24. T F DK A diagnosis of ADHD by itself makes a child eligible for placement in special education.

25. T F DK Stimulant drugs are the most common type of drug used to treat children with ADHD.

26. T F DK ADHD children often have difficulties organizing tasks and activities.

27. T F DK ADHD children generally experience more problems in novel situations than in familiar situations.

28. T F DK There are specific physical features which can be identified by medical doctors (e.g. pediatrician) in making a definitive diagnosis of ADHD.

29. T F DK In school age children, the prevalence of ADHD in males and females is equivalent.

30. T F DK In very young children (less than 4 years old), the problem behaviors of ADHD children (e.g. hyperactivity, inattention) are distinctly different from age-appropriate behaviors of non-ADHD children.

31. T F DK Children with ADHD are more distinguishable from normal children in a classroom setting than in a free play situation.

32. T F DK The majority of ADHD children evidence some degree of poor school performance in the elementary school years.

33. T F DK Symptoms of ADHD are often seen in non-ADHD children who come from in adequate and chaotic home environments.

34. T F DK Behavioral/Psychological interventions for children with ADHD focus primarily on the child's problems with inattention.

35. T F DK Electroconvulsive Therapy (i.e. shock treatment) has been found to be an effective treatment for severe cases of ADHD.

36. T F DK Treatments for ADHD which focus primarily on punishment have been found to be the most effective in reducing the symptoms of ADHD.

37. T F DK Research has shown that prolonged use of stimulant medications leads to increased addiction (i.e., drug, alcohol) in adulthood.

38. T F DK If a child responds to stimulant medications (e.g., Ritalin), then they probably have ADHD.

39. T F DK Children with ADHD generally display an inflexible adherence to specific routines or rituals.

SAMPLE VIGNETTES

Instructions

On the following pages, there are descriptions of children who have inattentive, hyperactive, and/or defiant behaviors. When you read each description, please imagine that you are that child's teacher. After each description, there are questions for you to complete based on your experience and opinions as a teacher. If you are unsure how to respond, please go with your first impression or reaction. Circle a number within the range of "not at all, moderately, or extremely."

Daniel is a 9-year old boy. Daniel's teacher describes him as always moving, from squirming in his seat to wandering around the classroom, chattering endlessly instead of doing his work. His teacher says that Daniel doesn't do what she asks him to do, such as cleaning out his desk, despite her constant instructions, he starts work late because he often misplaces what he needs, While doing his work, he gets side-tracked into doing something else and turns in his work without checking. According to his parents, Daniel never seems to focus on what they say or ask of him, even when they repeat themselves. His behavior with others his age is similar. He often intrudes on what they are doing, and doesn't wait for his turn or concentrate on what's happening in their games.

1. How serious are Daniel's behavior problems?

1----------2----------3----------4----------5----------6----------7----------8------9

No at all moderately extremely

2. How much impairment do Daniel's behavior problems cause in his daily life?

1----------2----------3----------4----------5----------6----------7----------8------9

None moderate extreme

3. How disruptive are Daniel's behavior problems to those around him?

1----------2----------3----------4----------5----------6----------7----------8-----9

not at all moderately extremely

4. How much would Daniel's behavior problems interfere with the following:

a) his family?

1---------2---------3---------4---------5---------6---------7---------8---------9

not at all moderate extreme

b) his ability to make friends and get along socially with other children?

1---------2---------3---------4---------5---------6---------7---------8---------9

not at all somewhat extremely

c) his academic progress?

1---------2---------3---------4---------5---------6---------7---------8---------9

not at all somewhat extremely

d) his classroom?

1---------2---------3---------4---------5---------6---------7---------8---------9

not at all somewhat extremely

5. How frustrated would you be with Daniel's behavior during class?

1----------2----------3----------4----------5----------6----------7----------8------9

not at all moderately extremely

6. How stressful would it be to have Daniel as a student?

1----------2----------3----------4----------5----------6----------7----------8------9

not at all moderately extremely

7. How confident are you that you could implement an effective behavior plan for Daniel?

1----------2----------3----------4----------5----------6----------7----------8-----9

not at all moderate extreme

Daniella is a 14-year old girl. Daniella's teacher describes her as always moving and chattering endlessly instead of doing her work. Her teacher says that Daniella doesn't do what she is asked to do despite repeated instructions. Daniella starts work late because she often misplaces what she needs or has wasted a lot of time talking. When she starts doing her work, she gets side-tracked into doing something else and turns in her work without checking. In fact, Daniella's teacher says she is often just getting started on an assignment when the bell sounds for class change. According to her parents, Daniella never seems to focus on what they say or ask of her, even when they repeat themselves.

1. How serious are Daniella's behavior problems?

1----------2----------3----------4----------5----------6----------7----------8----------9

not at all moderately extremely

2. How much impairment do Daniella's behavior problems cause in her daily life?

1----------2----------3----------4----------5----------6----------7----------8----------9

none moderate extreme

3. How disruptive are Daniella's behavior problems to those around her?

1----------2----------3----------4----------5----------6----------7----------8----------9

not at all moderately extremely

4. How much would Daniella's behavior problems interfere with the following:

a) her family?

1----------2----------3----------4----------5----------6----------7----------8------9

not at all moderate extreme

b) her ability to make friends and get along socially with other children?

1----------2----------3----------4--------5----------6----------7----------8--------9

not at all somewhat extremely

c) her academic progress?

1----------2----------3----------4----------5----------6----------7----------8------9

Not at all somewhat extremely

d) her classroom?

1----------2----------3---------4----------5----------6-----------7----------8-----9

Not at all somewhat extremely

5. How frustrated would you be with Daniella's behavior during class?

1----------2----------3----------4----------5----------6----------7----------8----------9

not at all moderately extremely

6. How stressful would it be to have Daniella as a student?

1----------2---------3----------4----------5----------6---------7----------8----------9

not at all moderately extremely

7. How confident are you that you could implement an effective behavior plan for Daniella?

1----------2----------3----------4----------5----------6----------7----------8----------9

not at all moderate extreme

Teachers' Sense of Efficacy Scale (short form)

Teacher Beliefs

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below by circling your answers. Your answers are confidential.

1. How much can you do to control disruptive behavior in the classroom?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

2. How much can you do to motivate students who show low interest in school work?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

3. How much can you do to get students to believe they can do well in school work?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

4. How much can you do to help your students value learning?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

5. To what extent can you craft good questions for your students?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

6. How much can you do to get children to follow classroom rules?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

7. How much can you do to calm a student who is disruptive or noisy?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

8. How well can you establish a classroom management system with each group of students?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very little Some Influence Quite A Bit A Great Deal

9. How much can you use a variety of assessment strategies?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

10. To what extent can you provide an alternative explanation or example when students are confused?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

11. How much can you assist families in helping their children do well in school?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal

12. How well can you implement alternative strategies in your classroom?

(1) (2) (3) (4) (5) (6) (7) (8) (9)

Nothing Very Little Some Influence Quite A Bit A Great Deal