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Teaching ADHD: A Mixed Methodological Look into Student-Teacher Relationships and  
Classroom Experiences for ADHD Diagnosed Students

by

Ashley N. Metzger

Dissertation

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Ashley N. Metzger

The Dissertation of Ashley N. Metzger is approved, and it is acceptable in quality and form for publication electronically:

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Laura Hamilton  
Chair

University of California, Merced

2021

This dissertation is dedicated to my grandmother, Concetta Helland.

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## **Chapter 1. ADHD, Teacher Perceptions, and the Familial Unit**

There has been a dramatic increase in the prevalence of ADHD. In fact, in 2011, over 1 in 10 children in the United States were labeled as having Attention-Deficit Hyperactivity Disorder (ADHD)—representing a 3.2% increase from estimates in 2003 and a 6% increase since 1978 (Centers for Disease Control and Prevention 2011). These increases in ADHD diagnoses have led to an increase in the school-aged children labeled as ADHD, suggesting that many classrooms have more students who are diagnosed, and also struggle with the symptoms associated the disorder.

The medical community often assumes that symptoms of ADHD make it more challenging to focus and engage with academic lessons, not only for those diagnosed with ADHD, but also for the other students in the classroom. Therefore, an ADHD diagnosis may function as a pejorative label—one that negatively influences how these students are viewed. Despite the increase in the prevalence of ADHD noted above, the sociological research focused on the effects of an ADHD diagnosis on student’s classroom experiences is limited. However, there is a robust body of scholarship documenting that other ascribed student characteristics, such as race and class, indirectly shape student achievement—in part, through teacher perceptions and expectations (Brophy 1983; Dusek and O’Connell 1973; Ferguson 2007; Paino and Renzulli 2012).

Teachers are not immune to stereotype bias; their perceptions of students are influenced by normative assumptions of different social groups. These perceptions can be discriminatory, and lead teachers to expect less of students from stigmatized categories (Jussium, Eccles, and Madon 1996; Metzger and Hamilton 2020). For example, teachers often perceive Native American and both Black immigrant and Black American students

as less capable than white students, and specifically rate Native American students as having the poorest approach to learning (Irizarry 2015a). As Jussium, Eccles, and Madon (1996) suggest, these negative expectations are problematic, as they can have powerful effects on student's future performance. Metzger and Hamilton (2020) find that ADHD diagnosed students are in fact expected to perform worse than their undiagnosed counterparts, through academic subject ratings. The lower expectations that diagnosed students face may be potentially limiting their full educational potential.

While previous research suggests that the school experiences of students diagnosed with ADHD are often negative, less is known about the relationships that diagnosed students develop with their teachers, as well as what might be contributing to these relationships. ADHD diagnosed students are likely to have much different classroom experiences and relationships with their teachers than their non-diagnosed peers. This dissertation seeks to understand the experiences of ADHD diagnosed students in the classroom and the relationships that they create with their teachers. This project thus addresses four primary research questions: (1) How does the ADHD label impact teacher's perceptions of their relationships with their diagnosed students?, (2) How do teachers understand and perceive an ADHD diagnosis?, (3) How do teacher's treat their ADHD diagnosed students in comparison to their non-diagnosed students?, and (4) What expectations and beliefs do teachers hold for guardians of ADHD diagnosed students? Over the next six chapters, you will find an exploration and discussion of each of these questions utilizing a mixed methodological approach.

### ***The Changing Face of ADHD***

ADHD, as a medical diagnosis, first made its debut in 1902 when Sir George Still described the disorder, though it was not actually called ADHD at that time. ADHD was first recognized by the mental health field in 1967, when the federal government provided funding to study how stimulants impacted children with hyperactivity (Holland and Valencia 2015). Since this time, ADHD has taken on many different names (e.g., minimal brain dysfunction, ADD with or without hyperactivity, ADHD, undifferentiated ADD, etc.), and is presently known as ADHD: IA, HI, combined subtypes (American Psychiatric Association 2013).

Recent statistics gathered by the Center for Disease Control and Prevention (CDC: 2011) suggests that there has been a steady increase of children being diagnosed with the disorder. However, it is difficult to determine if the increase represents a true change in the number of children who have ADHD, or a just a change in the number of children who have been diagnosed with ADHD. Given the wide range of symptoms in presentations of ADHD (see below for a more detailed description of these presentations) and their connection to non-compliance in a standard classroom setting, it is likely that not all children diagnosed truly have ADHD. In fact, according to the American Psychiatric Association (2013) only 5% of children (not the 11% documented by the CDC) are diagnosed with ADHD. Regardless, currently more children are dealing with an ADHD diagnosis than ever before.

The ADHD disorder is one of the most common neurodevelopmental disorders and is typically diagnosed during early childhood and can last into and throughout adulthood (Faraone 2002). It can present itself in three different ways: predominantly inattentive, predominantly hyperactive-impulsive, and a comorbidity of those two

presentations. A child who is inattentive may have issues paying attention to details, focusing, finishing tasks, and can be easily distracted. A child who has hyperactive impulsivity may have a hard time sitting still, may like to talk a lot, fidgets or moves very often, and has trouble with feeling restless and impulsive. A child that suffers from a comorbidity of those symptoms may have symptoms from both presentations discussed previously. These symptoms may make even the most common daily activities, like attending school or eating dinner, more challenging for those who are diagnosed with ADHD.

### ***The ADHD Label***

The labeling theory is based on the idea that behaviors are deviant only when society labels them as deviant. Labels allow for people to determine the distinction between deviance and non-deviance, normative and non-normative. Deviant labels often come with stereotypes, or generalizations of individuals who assume that label, and often these stereotypes are negative. They can be damaging and pose serious consequences for the well-being and life-satisfaction of labeled individuals. Most of the research on the detriments of labels focuses on individuals who have committed criminal acts and those diagnosed with mental health illnesses (Anderson and Taylor 2009; Giddens 1991; Link et al. 1989; Rosenfield 1997).

ADHD, while a medical diagnosis, can—in practice—be used as a negative label. Children who display disruptive behaviors are given a label directly after this behavior occurs (Hoza 2007). This label—ADHD—is often stigmatized. For example, children labeled with ADHD are assumed to be lazier, more violent, and at a significantly higher risk of getting in trouble and having lower academic performance (Metzger and Hamilton

2020; Walker et al. 2008). In this way, ADHD diverges from other medical diagnoses, such as asthma and depression, which are viewed more neutrally.

Within the classroom, a similar pattern exists. Teachers are more likely to rate labeled children with greater levels of disruption compared to non-labeled children (Fox and Stinnett 1996). Even when children marked with a deviancy label display what are considered “normal” behaviors, the label continues to shape teachers’ perceptions; that is, diagnostic labels (e.g., emotionally disturbed or learning disabled) can make it difficult for teachers to objectively evaluate behavior (Algozzine 1981; Foster and Ysseldyke 1976; Foster, Ysseldyke and Reese 1975; Ysseldyke and Foster 1978). The ADHD label can thus change teachers’ perceptions of children—potentially even how they evaluate or treat them in the classroom.

### ***Academic Performance of Children with ADHD***

Underperformance in academics is an issue faced by children with ADHD (Harris et al. 2005). On average, children labeled ADHD have lower mathematical and reading skill scores (Lahey et al. 1998; McGee et al. 1991). In comparison to non-diagnosed children, preschool-aged children with ADHD are in substantial danger for academic difficulty (Dupal et al. 2001). According to guardians, academic issues are not only dealt with in the classroom, but also at home (Rogers et al. 2009). While academic underperformance is significant in childhood, it also is relevant for adult lives; research suggests that, in general, adults with ADHD have lower occupational prestige (Manuzza et al. 1997).

It is, however, more difficult to pinpoint why ADHD children perform worse in school. Some evidence suggests that ADHD is characterized by deficits in the cognitive domain, as well as working and spatial memory impairments (Goldberg et al. 2005;

Martinussen et al. 2005). Reading impairments may also be exacerbated by inattention issues central to the diagnostic label of ADHD (August and Garfinkel 1990). These deficits are not only associated with decreased academic achievement, but also increase the risk for recurring episodes of school failure amongst those diagnosed (Gresham and MacMillan 1997).

There are other explanations, however for the poor performance of children labeled as ADHD. The label itself may create expectations of low achievement that can lead teachers to view student behaviors more negatively or to not recognize when students are excelling or displaying positive behavior. There is very little research that explores the relationship between perceptions of the label ADHD and teacher evaluations and treatment; however, as I discuss below, there is significant scholarship on the link between teacher perceptions of other marginalized groups and subsequent impact on student behavior.

### ***Importance of Teacher Perceptions***

Student performance is a critical aspect of educational success. However, how well students fare in the classroom may have less to do with their actual performance and more to do with how they are perceived and assessed (Cherng forthcoming; Cherng and Han forthcoming; Hughes, Gleason and Zhang 2005; Irizarry 2015a; Irizarry 2015b). These assessments can be based on various sources of information, like student records, physical characteristics, race, gender, other teachers, classroom behavior, and even sibling performance (Brophy and Good 1974; Dusek 1985; Ferguson 2007; Lee and Smith 2001; Paino and Renzuilli 2012; Rosenthal and Jacobson 1968; van den Bergh et al. 2010). These regularly referenced sources of information allow teachers to create

expectations of their students, and this can subsequently impact—both negatively and positively—how teachers ultimately assess and treat their students.

There is a substantial body of scholarship focusing on how teachers perceive marginalized racial groups, especially by race. Asian students, for example, are often seen as less disruptive and more engaged in the classroom by teachers (Bates and Glick 2013; Hacker 1992; Kao 1995; Matute-Bianchi 1986; McGrady and Reynolds 2012; Nakanishi 1988; Takagi 1992). In contrast, Black students are viewed and evaluated more negatively by teachers, with regards to both academic ability and social behavior within the classroom (Clark 1983; Downey and Pribesh 2004; McGrady and Reynolds 2012; McKnown and Weinstein 2008; Ogbu 1991; Ready and Wright 2011). These differences may be, in part, a function of teachers' reliance on racial and ethnic stereotypes, shaping their perceptions of minoritized students (Irizarry 2015a; Irizarry 2015b).

Research on teacher perceptions of students with ADHD is much more limited; however, some recent work indicates that teachers view students diagnosed with ADHD differently than their non-diagnosed peers (Koonce et al. 2004; Metzger and Hamilton 2020; Ohan et al. 2011). For example, vignette studies have presented descriptions of children with ADHD symptoms, but varied the presence of an ADHD diagnostic label. When the label was present, teachers saw students as having more serious behavioral issues, attention problems, being more likely to disrupt the classroom, and requiring more time and effort than they were able to provide (Koonce et al. 2004; Ohan et al. 2011).

Teachers' negative perceptions of diagnosed students may also have serious consequences for how they rate their students' academic achievement and how they treat their students, consequently shaping their academic outcomes (Ford and Stangor 1992;

Good, Aronson, and Inzlicht 2003; Schaller and Maass 1998). Specifically, Metzger and Hamilton (2020), discover that teachers are less likely to rate students with ADHD as above grade level and more likely to rate students with ADHD as below grade level across subjects compared to students without ADHD, despite the student's actual academic ability, as well as other control variables. This study demonstrates that the diagnosis of ADHD is often paired with considerable social stigma.

### ***The Role of Guardians***

Guardians play a substantial role in their students' lives, in particular their academic lives. When it comes to their involvement at school, the expectations on guardians have increased in more recent years. While research regularly refers to parents and parenting styles, this dissertation utilizes the terms guardians, except when participants used the word and in the discussion of the quantitative data, to represent all family makeups—parents, foster parents, grandparents, aunts/uncles, etc.—to keep this discussion inclusive; though most of the guardians referred to in this project are actually the students' parents. Guardians are not only expected to ensure that their student gets to school, completes all homework, and arrives in the appropriate attire; guardians are even expected to help out at school, provide classroom resources, and to actively engage in educating their student. Unfortunately, not all families and guardians are able to meet the expectations that schools, and teachers might set for them (Delgado-Gaitan 1991; Erickson and Mohatt 1982; Goldman and McDermott 1987; Lareau 1989; Macias 1987; Wilcox 1982). Not being able to meet the school's expectations might lead to negative consequences for students.

Sociological research on child rearing styles, has identified that families from different class backgrounds—working-class and middle-class families—rear their children



in different ways. According to Lareau (2002), working-class families employ “natural growth” to raise their children, while middle-class families utilize “concerted cultivation.” Natural growth means that working-class guardians care for the basic needs of their children and allow them to grow naturally on their own. In contrast, when engaging in concerted cultivation, middle-class guardians actively cultivate their children’s talents, skills, and opinions. Both of these child rearing styles have pros and cons for a child’s development. Although there is not a “right” way to raise a child, schools’ value and legitimate middle-class guardians’ approaches, while treating the approaches of working-class guardians as negligent (Lareau 2002).

Similarly, teachers may also value one child rearing approach more than another. This may be particularly true when it comes to how guardians might handle or deal with their ADHD-diagnosed child. Perceptions of guardians and/or the familial unit may start before a diagnosis is even present, as teachers and school personnel are heavily involved in the process of referring students for diagnosis, especially ADHD diagnoses (Sax and Kautz 2003). Depending on how guardians handle their student’s diagnosis, and the subsequent symptoms, teachers and school personnel may perceive them as either more capable or incapable. These perceptions might be more important for the student’s school experience and outcome, than the student’s actual behavior. Thus, it is crucial to include guardians in the discussion of ADHD diagnosed students school experiences.

### ***Dissertation Outline***

Despite all the research noted above, less is known about the ways that teachers might differentially treat and perceive children with ADHD and the types of relationships they create with their diagnosed students. Research is lacking when it comes to in-depth data

on how ADHD functions in the classroom and the impact it has on teachers and students' interactions. While there are some quantitative measures that indirectly assess how teachers respond to their perceptions of these students, these are only imperfect measures of behavior. At this point, more research is necessary to determine three things: (1) if teachers do act on their perceptions and perceived expectations, (2) what kinds of relationships diagnosed students develop with their teachers that might lead to differential treatment by teachers (or vice versa), and (3) how guardians of those students diagnosed with ADHD are perceived and expected to act according to teachers.

This dissertation explores these items in an attempt to better understand how ADHD functions in a classroom setting and the impact it might have on diagnosed students. The next five chapters will review various aspects of ADHD in the classroom. Chapter 2 investigates the relationships that ADHD diagnosed students develop with their teachers. It seeks to understand if ADHD diagnosed students have more positive or negative relationships with the teachers that they encounter in the classroom, using quantitative data from the Early Childhood Longitudinal Study (ECLS-K: 2011), which is longitudinal data collected by the National Center for Education Statistics. It also sets the stage for a qualitative exploration into what might be contributing to student-teacher relationships for ADHD diagnosed students.

Chapter 3 provides the details into what and how the qualitative data was collected. Qualitative data for this project include both interviews with teachers and school personnel and ethnographic observations in the school. This methods chapter addresses the mixed methodological strengths of sociological research. The chapter also explains in detail the data sources and methodology for chapters 4-6.

Chapter 4 relies on the interview portion of the qualitative data collected. It will introduce the teacher and school personnel categories that were created while reviewing the data. These categories reflect different understandings of what an ADHD diagnosis is and will also be referred to in Chapter 5. The interviews allowed me to tap into attitudes and perceptions that teachers and school personnel hold with regard to ADHD.

Chapter 5 incorporates the ethnographic data from the classroom observations. It explores how teachers and school personnel treat their students, in particular their ADHD diagnosed students. I find that ADHD diagnosed students may be subjected to harsher treatment in the classroom as a result of the symptoms of their diagnosis. The teacher and school personnel categories described in the previous chapter are associated with different types of student treatment. The ethnographic data allowed me to observe actual behaviors to see how teachers respond to their diagnosed students in the classroom.

Chapter 6 utilizes all the qualitative data and combines both the interviews and the classroom observations. This chapter examines the impact that guardians might have on teachers' perceptions of their ADHD diagnosed students. It is possible that perceptions of a student's familial unit are more important for perceptions of the student than the actual diagnosis. Guardians are a substantial part of their student's school experience, so it is important to include them in the discussion of diagnosed students' classroom and school experience.

The final chapter, Chapter 7, is intended to tie together the findings from all the empirical chapter (i.e., chapters 2-6). The central aim is to summarize how the evidence relates to this projects' research questions—the ADHD diagnosis impact on student-teacher relationships, and on perceptions and treatment of diagnosed students, as well as

teachers' perceptions and expectations of the guardians that have students diagnosed with ADHD—while also discussing the major contributions of this work. The final chapter also addresses the limitations of the project and concludes with suggestions for future avenues of research.

## **Chapter 2. Teacher Perceptions of ADHD and Student-Teacher Relationships**

The relationships that are created between students and their teachers are essential for academic outcomes. Students who develop strong and nurturing relationships with their teachers have been observed to be more resilient (Johnson 2008), more engaged in class (Klem and Connell 2004) and have increased cognitive development (Davis 2003). These relationships can lead students to have greater academic achievement, increased levels of educational/professional advancement (i.e., development of problem-solving and public speaking skills) and higher educational aspirations (Endo and Harpel 1982; Goh and Fraser 1998; Webster and Fisher 2003). As this research suggests, developing good relations between students and their teachers is central for student success—both current and future.

The presence of a developmental disability in the classroom may change this positive association. Some research indicates that when a developmental disability—i.e., physical, learning, language, or behavior impairments (Center for Disease and Control Prevention 2019)—exists the relationship between a teacher and student is more negative. For example, students with Autism Spectrum Disorder (ASD) have considerably poorer relationships with their teachers, characterized by more conflict and less closeness, compared to both students with Intellectual disabilities (ID) and students with no disabilities (Blacher et al. 2014; Caplan et al. 2016). In contrast to typical development, Eisenhower, Baker and Blacker (2007), find that students with ID's also experience deficient relationships with their teachers.

Despite scholarship that indicates developmental disabilities are harmful for student-teacher relationships, less is known about the effects that an Attention-Deficit

Hyperactivity Disorder (ADHD) diagnosis has on the relationships that diagnosed students develop with their teachers. ADHD is characterized by a variety of symptom presentations: inattentiveness, hyperactive-impulsivity and a comorbidity of these two presentations (American Psychiatric Association 2013). Research does, however, suggest that the ADHD label is associated with social rejection and negative stereotypes (Canu et al. 2008; Law et al. 2007; Martin et al. 2007; Walker et al. 2008). With the rise in the prevalence rates of ADHD—1 in 10 children in the United States are diagnosed (Centers for Disease Control and Prevention 2011; Danielson et a. 2018)—typically, there is at least one diagnosed student in every classroom (Hoza 2007). This increases the possibility that the negative stereotypes related with the ADHD label may also influence student-teacher relationships.

Using the 1<sup>st</sup>-3<sup>rd</sup> grade waves of the Early Childhood Longitudinal Study (ECLS-K: 2011), I examine the association between the diagnostic label of ADHD and student-teacher relationships, by asking: How does the ADHD label impact teacher’s perceptions of their relationships with diagnosed students? Results suggest that the negative stigma associated with an ADHD diagnosis leads teachers to perceive their relationships with their diagnosed students in a more negative manner. In the discussion section, I discuss the implications that poorer student-teacher relationships have on diagnosed students educational and future aspirations.

### ***Teacher Perceptions of ADHD and Student-Teacher Relationships***

There are many factors that contribute to the development of negative student-teacher relationships. Teachers regularly use subjective <sup>1</sup>criteria, like race, sex, behavior and even

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<sup>1</sup> Utilization of subjective criteria to judge students is harmful for their academic experiences and achievement.

sibling performance (Brophy and Good 1974; Ferguson 2007; Rosenthal and Jacobson 1968; van den Bergh et al. 2010), to apprise their perceptions of students and their abilities. These perceptions may shape student-teacher relationships, especially perceptions of behavior (McGrath and Bergen 2015).

Research finds that subjective criteria, like race, lead teachers to perceive minority students as less capable, even when these students are high academic performers (Cherng 2017; Irizarry 2015a, 2015b). This body of work has more recently been extended to include other forms of subjective criteria, particularly through the exploration of teacher perceptions and developmental disabilities. Metzger and Hamilton (forthcoming) discover that teachers are more likely to rate students with an ADHD diagnosis as lower performing, even when diagnosed students cognitive test scores suggest otherwise. This pattern holds despite the addition of student, parent, and school characteristics. The research on perceptions provides strong support for the fact that teachers utilize stereotypes about students to influence how they perceive non-normative students in the classroom.

However, less is known about how perceptions of an ADHD diagnosis might impact student-teacher relationships. Because ADHD is a medical diagnosis it is associated with a considerable amount of stigma, due in part to its recognition as a deviant social label (see Hoza 2007; Law et al. 2007; Martin et al. 2007). According to labeling theory, behaviors and/or identities become deviant as a part of the label, where deviancy is determined when society labels specific behaviors or identities as just that—deviant (Goffman 1963). Deviant labels are usually linked to negative stereotypes (Goffman 1963; Link et al. 1989; Rosenfield 1997). These stereotypes create assumptions

about individuals who assume the labels; students with ADHD are generally thought to be more violent, lazier, and more likely to get in trouble (Walker et al. 2008).

Within the classroom, a similar pattern exists. Teachers are more likely to negatively rate labeled children with greater levels of disruption compared to non-labeled children (Fox and Stinnett 1996). Even when children marked with a deviancy label display what are considered “normal” behaviors, the label continues to shape teachers’ perceptions; that is, diagnostic labels (e.g., emotionally disturbed or learning disabled) can make it difficult for teachers to objectively evaluate behavior (Algozzine 1981; Foster and Ysseldyke 1976; Foster, Ysseldyke and Reese 1975; Ysseldyke and Foster 1978). The ADHD label can thus change teachers’ perceptions of children—potentially shaping the relationships that these students form with their teachers.

### ***Student-Teacher Relationships and Academic Success***

An extensive amount of time is spent in classrooms for both students and teachers in the public education system. On average, teachers spend approximately 32 hours a week delivering instruction to their students (National Center for Education Statistics 2011). Over the course of an academic year—approximately, nine to ten months—students and teachers develop relationships through their dispositions, behaviors and interactions (Hamre and Pianta 2006). This allows students and teachers quite a bit of time to create relationships, which influences students’ academic success.

Due to the regular interaction between teachers and students, how well students perform in class relies heavily on the relationships that they develop with their teachers (Alvidrez and Weinstein 1999; Faulkner et al. 2014; Hamre and Pianta 2001; Rosenthal and Jacobson 1968). Students who develop strong and supportive relationships with their



teachers feel more capable, have greater academic gains, feel safer in school, and have more positive relationships with their peers (Hamre and Pianta 2006). Different populations of students may have different outcomes. This may be especially true for young girls, where a strong bond between Hispanic American girls and their teachers has been found to increase these girl's academic achievement, while decreasing disciplinary problems for white girls (Crosnoe, Johnson and Elder 2004). For boys, when a student and teacher are connected there is a positive effect on a boy's math achievement; more so, the student-teacher relationship creates a buffering effect for the relationship between school bullying and math achievement (Konishi et al. 2010).

Positive student-teacher relationships also decrease school drop-out rates (Davis and Dupper 2004) and increase student's motivation to advance their mastery of academic expertise (Lundberg and Schreiner 2004; Rassiger 2011; Reyes et al. 2012; Thijs and Fleischmann 2015). The perception of closeness with one's teacher allows students to feel more open to learning and gaining new skills. This can impact not only their academic achievement, but also their overall educational experiences.

#### *Student-Teacher Relationships and At-Promise Youth*

Although previous research finds that positive student-teacher relationships are influential for student's academic success, not all students have the same opportunity to engage in positive connections with their teachers, especially marginalized students. Unfortunately, there is less information on how developmentally marginalized groups, specifically students diagnosed with ADHD, experience their relationships with their teachers.

A significant amount of research, though, has explored teacher perceptions of another marginalized group: racial minorities. In general, research indicates that minority students and their guardians, have less supportive and less positive relationships with teachers (Hughes and Kwok 2007; Kessner 2000; Ladd, Birch and Buhs 1999; Saft and Pianta 2001; Wyrick and Rudasil 2009). Similarly, behaviorally at-risk African American students are more likely to have positive social, behavioral, and engagement outcomes as the quality of their student-teacher relationship increases, as reported by the students and their teachers (Decker, Dona and Christenson 2006). Given the research on negative teacher perceptions of students of color as less capable academically (Bates and Glick 2013; Cherng 2017; Downey and Pribesh 2004; Irizarry 2015a, 2015b; McGrady and Reynolds 2012) and behaviorally (Tenenbaum and Ruck 2007; Thomas et al. 2009; Zimmerman 2018), the fact that minority students have more negative student-teacher relationships should come as no surprise.

Racial background, though, is not the only factor that places students at-risk for having negative student-teacher relationships. Several other sociodemographic characteristics, like age and gender, impact the relationships between students and teachers. Older students are non-normative in classroom settings, as classrooms generally have younger student bodies. These older students are more likely to have negative relationships with their teachers (Furner and Skinner 2003; Lynch and Cicchetti 1997). This, according to McGrath and Bergen (2015), results because of the expectations that older students should be more mature and need less nurturing. Scholarship suggests that gender plays a role, as well. While female students have higher quality relationships with their teachers, male students have more conflictual relationships with their teachers

(Buyse, Verschueren and Doumen 2011; Hughes, Cavell and Wilson 2001; Jerome, Hamre and Pianta 2009). Gender difference may result due to the stereotypical gender roles assigned to children and the behavior expectations associated with those roles (Eccles, Jacobs and Harold 1990; Kesner 2000). Positive student-teacher relationships may be particularly valuable for at-risk youth, who may struggle in the classroom without the encouragement and/or support associated with a good student-teacher relationship.

ADHD diagnosed students may also experience poorer relationships with their teachers. Children labeled with ADHD and those without may be viewed differently by educators. Vignette studies have presented descriptions of children with ADHD symptoms, but varied the presence of an ADHD diagnostic label. When the label was present, teachers saw students as having more serious behavioral issues, being more likely to disrupt the classroom, and requiring more time and effort than they were able to provide (Ohan et al. 2011). Similarly, Koonce and colleagues (2004), found that the ADHD label was associated with higher rates of reported attention problems.

Students with developmental disabilities have been shown to have poorer relationships with their teachers compared to students without a disorder present (Murray and Greenberg 2001; Murray and Murray 2004). ADHD diagnosed students are viewed less positively by their teachers (also by their peers and guardians) (Batzle et al. 2010; Eisenberg and Schneider 2007). This may result due to the poor behavior exhibited by students diagnosed with ADHD in the classroom (Henricsson and Rydell 2004). Teacher's perceptions of their students are heavily impacted by problematic behaviors, which are also regularly associated with an ADHD diagnosis (Hoza 2007; Law et al.

2007; Martin et al. 2007; McGrath and Bergen 2015; Walker et al. 2008). This places students with an ADHD diagnosis, who are perceived as having non-normative classroom behavior, disproportionately more at-risk of having inferior connections with their teachers.

Research suggests a diagnosis of ADHD already disadvantages students academically (Metzger and Hamilton forthcoming), but can it also be problematic for diagnosed students' relationships with their teachers? Given the research on student-teacher relationships and their impact on educational success, furthering the work on student-teacher relationships and an ADHD diagnosis is crucial. It is possible that poorer student-teacher relationships will lead to even harsher negative perceptions of diagnosed student abilities, thus impacting their educational experiences and future educational trajectories.

### ***DATA, METHODS, AND MEASURES***

For the quantitative component of this dissertation, the Early Childhood Longitudinal Survey (ECLS-K: 2011), was utilized. The ECLS program collects national data on children, starting at birth and following them at several points through the 8<sup>th</sup> grade. All measures will be from the Spring semesters of the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> grade years, as the focus of this research is early school experiences over time. Many children are not diagnosed until spending some time in school, where their behaviors are labeled as problematic—making elementary grades ideal. The average age of diagnosis is 7 (Center for Disease Control and Prevention 2011), placing many youth with ADHD in the first to third grade range in school.

These data are currently the only available data that can be used to explore my research questions. They include information on student characteristics, family background, student performance, teacher perceptions of student performance, track placement, and school characteristics. The ECLS-K: 2011 restricted data is the best suited for studying ADHD since it includes an actual measure of diagnosis, as well as other measures pertaining to this disorder. Most public use datasets do not include such sensitive medical and psychological information. It is also unusual because it combines different types of data—teacher surveys, as well as student educational and medical records—that cannot normally be found in one dataset. The data also allow me to look at this topic longitudinally.

There are 54,522 total possible observations from the data, which represents 18,174 unique children; to be included in the sample students did not need to have data for all three years. The sample size for the analyses are 18,768 observations (representing 10,878 unique students). The student-teacher relationship scale and the positive classroom behavior scale had the most missing data, followed by ADHD diagnosis. Attrition between ADHD-diagnosed and non-diagnosed samples are fairly similar. For example, while 43% of non-diagnosed observations are missing on the student-teacher relationship scale, 37% of diagnosed observations are missing (and these values are similar for the missing data on the positive classroom behavior scale as well).

### ***Key Dependent and Independent Measures***

Two key measures were critical for the analyses: a positive diagnosis of ADHD and teacher rated relationships with their students. See Appendix 1 for variable descriptions.

*Teacher Rated Student-Teacher Relationships.* The dependent variable is a measure of a positively rated relationship between students and their teachers. A mean scale of 15 behavioral assessment items rated by teachers is used ( $\alpha = 0.89$ ).<sup>2</sup> The assessment items were summed and divided by 15 (the total number of items) to construct the scale. These items, detailed in Appendix 1, explore how teachers rate their relationships with their students. A low score reflects a more negative student-teacher relationship, and a high score reflects a more positive relationship. A survey given to teachers in the Spring of each year, asks teachers to rate these 15 items for their students, with a 5-point rating scale ranging from “Definitely does not apply,” to “Definitely applies.”

*ADHD Diagnosis.* The key independent variable is a dichotomous measure of ADHD diagnosis. Parents are asked about their children having attention issues and subsequently being diagnosed with ADHD or ADD (Attention Deficit Disorder, which does not include the hyperactivity component) in the Spring Semester Parent Interview of each year. Consistent with current diagnostic criteria, ADHD and ADD diagnoses combined ADHD and ADD. The publication of the 4<sup>th</sup> edition of the DSM-IV eliminated ADD as an official diagnosis and instead included it as a one of the three subtypes of an ADHD diagnosis. The DSM-V (2013) maintains this language. I followed the DSM-V’s classification and included both ADD and ADHD diagnosed students in one group.

It is impossible to determine if teachers have been informed of an ADHD diagnosis. Thus, it may be the behaviors that teachers are responding to—not the actual label. However, in supplemental analyses I considered two additional variables, having

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<sup>2</sup> These measures were developed by Pianta and Steinberg (1992), and come from their published piece, “Teacher-child relationships and the process of adjusting to school.”

an Individualized Education Plan (IEP) in place at school and guardian-teacher discussion of behavioral issues, to determine if the teachers are aware of the label. Within the sample of children diagnosed with ADHD, 37% have an IEP, 47% take medication for ADHD at school, and 72% have had behavioral issues discussed between guardians and their student's teacher. This provides some evidence that, at least in most cases, teachers have discussed the ADHD diagnosis (or a potential diagnosis) with guardians; particularly for those who have an IEP on file with the school.

The dataset, unfortunately, does not have enough information on the date of diagnosis to include it in the analyses. One consequence of this limitation is that it makes it difficult to determine when these children were assigned the label of ADHD. Research suggests, however, that a label is assumed almost immediately after a disruptive behavior (Hoza 2007). A label typically initiates the process of seeking professional help to obtain a diagnosis (Arcia et al. 2000; Ohan et al. 2011). If anything, these analyses are a conservative test of the effect of the ADHD label on teacher perceptions, as the ADHD sample may not include all the children who are perceived as having such a disorder.

### ***Explanatory Variables***

Several explanatory variables are included in the models to rule out any alternative explanations for a significant relationship between the student-teacher relationship and ADHD diagnosis.

*Subject-Specific Test Score.* It is important to determine if teacher's perceptions of student ability are reflective of student capabilities. Teachers may build their perceptions around student performance on standardized tests or, alternately, they may have expectations that are more positive or negative than assessments of student capability

warrant. Thus, I include a measure for the student's academic ability on standardized tests. For each student, I conducted an average score using their math, science and reading Item Response Theory (IRT) scores. To construct this variable, each student's score for their math, science and reading subject specific tests, from the Spring of their 1<sup>st</sup>-3<sup>rd</sup> grade years, were added together and divided by three to obtain a measure of overall average performance.

*Student Characteristics.* A large body of literature has focused on sex and gender differences in children's academic achievement, with girls performing slightly better but facing bias in the classroom (Pomerantz, Altermatt and Saxon 2002; Musto 2019). There is also a large difference in the prevalence of ADHD diagnosis. Approximately, 13.2% of males are diagnosed with ADHD, whereas only 5.6% of females receive a similar diagnosis (Center for Disease Control and Prevention 2011). Teachers even report that they are more comfortable handling behavioral issues with males who are diagnosed with ADHD than females (Ohan et al. 2011). We thus include an indicator of female status in analyses.

Racial performance gaps are a function of inequities in educational and family resources (Brooks-Gunn et al. 2003; Duncan and Magnuson 2005), as well as teachers' racialized perceptions of students' academic abilities (Cherng 2017; Hughes, Gleason and Zhang 2005; Irizarry 2015b). As noted earlier, racial background also affects the rate of diagnosis for ADHD (Centers for Disease Control and Prevention 2011; Danielson et al. 2018). Our analyses therefore include an indicator of student race. Respondent race is coded in five categories: white (non-Hispanic), Black (non-Hispanic), Hispanic, Asian



(non-Hispanic), other racial category (non-Hispanic), and two or more races.<sup>3</sup> I include a series of race dummies in analyses, with white as the reference category.

Student age shapes the timing of ADHD diagnosis, as mentioned above. Older students, in general, typically have greater mastery over classroom skills and may appear more mature and responsive to teachers, leading to more positive teacher perceptions. As individual students age through elementary school, however, gaps in performance become more visible. Thus, in longitudinal analyses, increasing age may appear as a penalty rather than a benefit. A measure of student age in months is included.

*Parent Characteristics.* There is a positive relationship between parental income and student achievement (Blau and Duncan 1967; Jencks et al. 1972), as more affluent parents can afford material resources to enhance their children's performance. Parental income also shapes the likelihood of ADHD diagnosis; children from lower income households are most likely to be diagnosed (Cuffe, Moore, McKeown 2005; Froehlich, Lanphear, and Epstein 2007). In these analyses, parental income is captured by a series of categorical measures, with the highest category (\$100,001 or more) as the reference.

More educated parents can offer children access to cultural capital that is rewarded in schools (see Bourdieu and Passeron 1977) and have greater success in securing resources and special attention for their children (Bodovski and Farkas 2008; Lareau 2003). Evidence suggests that parents with lower levels of education are more likely to have ADHD-diagnosed children (Cuffe et al. 2005), but this is predicated on access to insurance—which is tightly connected to employment and thus parental

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<sup>3</sup> The “other race” category includes Native Hawaiian, other Pacific Islander, American Indian or Alaska Native students who do not identify as Hispanic, along with students whose racial identification is recorded as “other.” Numbers for these groups were too small to disaggregate in our analyses.

education (Froehlich et al. 2007; Morgan et al. 2013). The highest level of parental education is operationalized here as a set of dummies, with advanced degree as the reference category.

*School Characteristics.* Organizational contexts may shape the number of students who are diagnosed and offer more or less support for ADHD diagnosed students. Hence, the inclusion of basic school characteristics in the analyses. Private school control is treated as a dummy variable, with 1 indicating a private school and 0 indicating public school. Once their children are enrolled in private schools, guardians may have greater abilities to request specialized services. Private schools may also have greater resources to assist teachers with diagnosed students, which may mitigate the impact of having a diagnosed student in the classroom and work against negative perceptions of diagnosed students. In addition, regional differences are controlled for with a series of dummy variables (Northeast reference category). Diagnosis is lowest in the Northeast and highest in the South (Morgan et al. 2013).

*Positive Classroom Behavior.* Research has shown that children with ADHD display more problematic behaviors and are less socially skilled in comparison to children without ADHD (DuPaul et al. 2001). This might make it hard for diagnosed students to learn or lead to negative teacher-child interactions that predict worse grades, test scores, and work habits (Hamre and Pianta 2001). We thus include a measure of positive classroom behavior. A mean scale of 4 behavioral assessment items rated by teachers is used ( $\alpha = 0.81$ ).<sup>4</sup> To construct this scale the assessment items are added

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<sup>4</sup> These items are adapted from the *Temperament in Middle Childhood Questionnaire* developed by Simonds and Rothbart (2004), which is itself adapted from the Children's Behavior Questionnaire (Rothbart et al. 2001).

together and then divided by 4. Detailed in the Appendix 1, these items tap into the symptoms that often accompany an ADHD diagnosis—inattentiveness and hyperactivity. Receiving a low score reflects the fact that teachers believe a student displays more negative behaviors, while a high score reflects displaying more positive behaviors in the classroom. It is very possible that negative stereotypes associated with ADHD diagnoses influence teacher evaluations of students' behaviors (like their appraisals of students' performance). Therefore, this measure may not only be capturing actual behavioral issues displayed by students, but also it may partially be capturing teachers' negative perceptions of ADHD.

*ADHD and IEP Status.* Teacher perceptions of an ADHD diagnosis may be impacted by their recognition of an ADHD diagnoses. This awareness may either negatively or positively influence the relationships that they develop with their diagnosed students. The most common way to determine if teachers are aware of students' diagnoses is through the use of IEP plans; however, an IEP still does not guarantee that a teacher is aware of a diagnosis, but it is the best indication that they may be at least familiar with their student's diagnosis background. To explore the effects of the ADHD, label a variable has been created to compare three groups of students: (1) students without an ADHD diagnosis, (2) students who are diagnosed with ADHD, but do not have an IEP on file at their school, and (3) students who are both diagnosed with ADHD and have an IEP on file at their school. This variable will help to determine just how important an IEP plan is for student-teacher relationships. The reference category for this variable is students without an ADHD diagnosis.

### ***Analytic Strategy***

Descriptive statistics are presented first, separating diagnosed students from non-diagnosed students. In order to explain these patterns, regression analyses are shown next. The key independent variable of interest is a positive ADHD diagnosis. The outcome variable of interest is a teacher-rated student-teacher relationship scale. When estimating the models, random effects linear regression is utilized to address any residual heteroskedasticity that may result due to the nesting of the students in schools. Students must be clustered because there are multiple observations per student in our data (1<sup>st</sup>-3<sup>rd</sup> grade waves); thus, the assumption that the residual errors are uncorrelated is most likely breached.

For the outcome variable, a bivariate model is estimated first, where ADHD diagnosis is used to predict the type of student-teacher relationship. Subsequently, I add standardized IRT test scores, as a measure to control for student's ability levels across subjects. Next, in the third model I include the remaining student, parent and school characteristics to explore what influence they have on student-teacher relationship for ADHD diagnosed students. Lastly, I estimate a full model that includes a positive classroom behavior scale in order to help discover if ADHD diagnosed students' relationships with their teachers are explained by perceived behavioral symptoms. These coefficients will be presented to display the overall patterns.

While these analyses are important for understanding the impact that ADHD has on student-teacher relationships, it tells us less about how the label impresses upon the relationships that teachers and students develop. Thus, following the same model setup as discussed above, I added a variable that accounts for both ADHD diagnosis and IEP status. This variable allows for a comparison of the effects between IEP and non-IEP

ADHD diagnosed students to effectively establish how and IEP impacts student-teacher relationships.

*Supplemental Analyses.* In addition to the random effect's linear regression models, supplemental analyses included several interaction terms added to the full models discussed above. Given the importance of the intersections in sociological research, these analyses interact a student's ADHD diagnosis with their race, class, gender, parent, school and teacher characteristics. Significant interactions will be discussed in the following results section.

## **RESULTS**

### *Non-Diagnosed versus Diagnosed Students*

Table 1 displays the descriptive statistics for each variable, as well as the statistical differences between the ADHD diagnosed students and the non-diagnosed students in the sample. Approximately 4% of the sample are diagnosed with ADHD. Teachers rate their relationships with their ADHD diagnosed students as poorer in comparison to non-diagnosed students. Diagnosed students have lower performance counts for their IRT test scores. Diagnosed students are much less likely to be female. There is a higher proportion of diagnoses amongst Black and white students, whereas there is a lower proportion amidst Hispanic, Asian and students classified into the other race category. On average, diagnosed students tend to be marginally older than their non-diagnosed peers.

[TABLE 1 ABOUT HERE]

Differences are present amongst the indicators of class: parental education and annual household income. An ADHD diagnosis is more likely to be present for students whose guardians have either a high school diploma/equivalent, or who have some

college/vocational program credit. There is a decreased likelihood of a diagnosis amongst guardians with a Bachelor's or Advanced Degree, and the lowest likelihood is for students with parents who have less education than a high school diploma. Guardians who earn \$30,000 or less annually are more likely to have diagnosed children, while guardians who have incomes higher than \$75,001 annually are less likely to have children who receive an ADHD diagnosis.

School features also matter for the probability of an ADHD diagnosis. Private schools tend to have lower enrollment rates of diagnosed students. Living in the Northeast and Western regions of the United States is associated with a smaller population of diagnosed students, whereas the highest likelihood of having a diagnosis occurs while living in the South.

Lastly, given the symptoms associated with an ADHD diagnosis, it is important to discuss how classroom behavior might differ by being diagnosed or not. Students diagnosed with ADHD are less likely to be viewed as having positive classroom behavior. The following section moves past these group differences to explore if and to what extent an ADHD diagnosis impacts student-teacher relationships.

#### *Student-Teacher Relationships*

In this section I explore the impact that an ADHD diagnosis has on the relationships between diagnosed students and their teachers (see Table 2 for results). Model 1 illustrates that students diagnosed with ADHD have poorer relationships with their teachers ( $b = -.33, p < .001$ ).

[TABLE 2 ABOUT HERE]

In Model 2, IRT scores have been included to determine if teacher's perceptions of their relationships with their diagnosed students are influenced by a measure of their cognitive performance. An increase in a student's IRT score is associated with a more positive student-teacher relationship. Despite this positive association, students diagnosed with ADHD still are more likely to have worse relationships with their teachers ( $b = -.30$ ,  $p < .001$ ). Even when controlling for students' cognitive abilities we see that teachers have more negative relationships with diagnosed students.

Model 3 adds variables for student and parent sociodemographics, as well as school characteristics. Even after the inclusion of these explanatory variables, the pattern remains consistent: students diagnosed with ADHD have worse relationships with their teachers, as perceived and reported by these teachers ( $b = -.24$ ,  $p < .001$ ). These results suggest that an ADHD diagnosis does in fact matter for student-teacher relationships.

The explanatory variables produce results consistent with what prior research suggests. Teachers rated their relationships with their female students more positively, while the student-teacher relationship declines as the age of the student increases. Student race and ethnicity also impact student-teacher relationships; in comparison to white students, Black, and students categorized as having two or more races, are more likely to have negative relationships with their teachers. Hispanic students, on the other hand, have better relationships with their teachers than their white counterparts.

As for parent characteristics, lower levels of parental education—i.e., some college/vocational program or less—is associated with a decrease in their student's relationship with their teacher. There is a similar pattern present with regard to parental income levels. Students whose guardians earn \$75,000 or less annually have an increased

likelihood of having poorer relationships with their teachers. These results indicate that teachers develop worse relationships with children from lower class households.

Though the type of school—public versus private—does not matter, there are small regional effects. Residing in the Southern and Midwestern regions of the United States is associated with a more favorable student-teacher relationship, while living in the West is associated with a more unfavorable relationship, in contrast to living in the Northeast. These regional effects may result due to the potential training and resources available to teachers in different regions, as well as differences in the expectations teachers in different regions have for the relationships that they develop with their students.

The last model, Model 4, includes the addition of positive classroom behavior. An ADHD diagnosis is more likely to be associated with a poorer student-teacher relationship ( $b = -.08, p < .01$ ), regardless of whether or not the same diagnosed student has positive classroom behavior. These findings show just how stable the pattern is: an ADHD diagnosis leads to an increased likelihood of teachers reporting perceiving negative relationships with their diagnosed students. These outcomes persist in spite of the inclusion of several explanatory variables, most notably the presence of an indicator of positive classroom behavior. Results indicate that teachers hold negative perceptions of ADHD diagnoses, which has the potential to lead to negative educational experiences and outcomes.

#### *ADHD Diagnosis and IEP Status*

The focus in this section is on how having an IEP on file affects student-teacher relationships. Having an IEP on file means that teachers and school personnel must make



accommodations for their diagnosed students. These accommodations might help to medicalize the diagnosis, thus creating a different relationship for diagnosed students with ADHD and an IEP. Similar to the analyses above, there were four models run with the same explanatory variables.

For Model 1, results indicate that diagnosed students, regardless of IEP status, have more negative relationships with their teachers in comparison to students without ADHD (See Table 3 for results). The effect size is, however, different depending on the IEP status of the students. Students who have an IEP, and who we assume have teachers knowledgeable to their diagnosis, have slightly larger effect sizes when it comes to their relationships with their teachers.

Models 2 and 3, have similar results to Model 1. The only difference is a change in the effect; Models 2 and 3 show that diagnosed students with an IEP have a somewhat smaller effect size. Despite this marginal change, the overall pattern remains the same: compared to students without ADHD, those who have ADHD, irrespective of their IEP status, have poorer relationships with their teachers.

Model 4, which includes a measure of positive classroom behavior, tells a slightly different story. When a student does not have an IEP on file, we still see that there is a significantly negative effect on their relationships with their teachers, regardless of their positively rated classroom behavior. However, this significance disappears for students who have an IEP on file when positive classroom behavior is added to the equation.

This suggests that when teachers take into consideration classroom behavior, students with ADHD who have an IEP on file are no different than students without an ADHD diagnosis when it comes to student-teacher relationships. The implication of this

lack of significance indicates that, not surprisingly, student's behavior in the classroom is associated with the development of relationships.

In these models, we see that having ADHD still negatively impacts student-teacher relationships, though having an IEP works to protect diagnosed students by making them marginally less negative. The fact that an IEP lessens and even negates this effect may be because an IEP comes with additional support in and out of the classroom. Students with an IEP have access to a multitude of resources including specialized testing conditions, an onsite aid devoted to them in the classroom, special classrooms where they can work with a tutor, and regular visits with a counselor. These extra resources may help take the tremendous pressure that teachers already encounter off of themselves and allow them to view the diagnosed student in a less negative manner.

Even more so, it suggests that for students with ADHD diagnoses, awareness of the need for extra supports—as suggested by an IEP on file at school—matters more for the relationships teachers develop with their students. When a teacher is aware of a diagnosis and its related accommodations, the focus may lie on the behavior<sup>5</sup> rather than the diagnosis itself. This may actually help teachers to better justify negative classroom behavior for their diagnosed students by rationalizing their behaviors and symptoms, permitting them to create slightly more positive relations.

### *Supplemental Analyses*

Demographic differences in the nature and the symptoms of an ADHD diagnosis, as well as the negative perceptions associated with race and gender, indicate the need to run

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<sup>5</sup> Since ADHD is so closely related to symptoms and behavior, this finding may also be an artifact of the effect that essentially all (96%) of the IEP students have displayed poor classroom behavior. So, when behavior is controlled for among this groups of students, it is likely that the results are confounded because the models may actually be overcontrolling for ADHD.

interactional models accounting for students' race, gender, and positive classroom behavior. There were no significant interactional effects for the effect of race and gender. However, results proved significant for the interactional model between ADHD and positive classroom behavior on student-teacher relationships. See Appendix 2 for full models that include the interaction term.

We see that the interaction between an ADHD diagnosis and positive classroom behavior has a positive effect on student-teacher relationships ( $b = .08, p < .01$ ). As demonstrated in Figure 1, positive behavior in the classroom lessens the negative impact that an ADHD diagnosis has on the relationship between a diagnosed student and their teacher. While the slope for the ADHD group is steeper, eventually positive classroom behavior wipes away the significance between an ADHD diagnosis and a negative student teacher relationship. This suggests that the more positive behavior a diagnosed student can exhibit in the classroom the more likely it is that they will increase their chances of having a more positive relationship with their teachers.

[FIGURE 1 ABOUT HERE]

Overall, this interaction shows that in conjunction with an ADHD diagnosis, positive classroom behavior operates to protect diagnosed students in creating more favorable relationships with their teachers. The challenge is that an ADHD diagnosis includes more problematic behaviors, making it more difficult for ADHD diagnosed students to exhibit the kind of positive behaviors that would eliminate the negative effects of ADHD on student-teacher relationships.

In fact, Figure 1 further attests to this, as it shows that ADHD diagnosed students do not receive a rating above 5 for positive classroom behavior. This indicates that teachers see ADHD diagnosed students as not capable of the highest rated classroom behaviors. Once again teachers' perceptions of the behavior associated with ADHD work to disadvantage any diagnosed students. This interaction provides more evidence for just how pervasive the negative perceptions that teachers hold for the ADHD label are and how these perceptions can influence diagnosed students' educational experiences.

### ***DISCUSSION***

The goal of this paper was to explore whether the bias associated with an ADHD diagnosis affects the type of relationships that teachers develop with their students. Considering the rise in ADHD diagnoses over the last ten years and the limited sociological knowledge on developmental disabilities, this article fills a crucial gap in the literature.

Results of this study indicate that teachers hold negative perceptions of their students diagnosed with ADHD. These negative perceptions lead teachers to develop biases about their diagnosed students. These biases have consequences for the quality of the relationships between teachers and students that develop in the classroom. Teachers are more likely to report poorer relationships with their ADHD diagnosed students, even after adjusting for student, parent and school characteristics.

ADHD diagnoses are associated with more negative behaviors, especially in the classroom, so we added a measure of teacher's ratings of positive classroom behavior to our models. Even when we control for positive classroom behavior, students diagnosed

with ADHD are still more likely to have poorer relationships with their teachers. In an attempt to disentangle what is happening supplemental interactional effects were tested.

Having highly rated positive classroom behavior actually mitigates the negative effect that the ADHD label poses for student-teacher relationships. On the surface, this interaction suggests that positive classroom behavior can overcome the stigma that is associated with an ADHD label. However, as Figure 1 shows, we see that students without ADHD and low rated classroom behavior have a boost in their relationships with their teachers, in comparison to students with ADHD who have similarly rated classroom behavior. We also see that ADHD diagnosed student's classroom behavior is capped, and that teachers do not assign them with the highest rated classroom behavior. These findings indicate that a penalty is present for students who are diagnosed with ADHD.

As a whole, these findings provide significant support for the notion that ADHD is a label that is associated with considerable social stigma. This negative stigma may create environments that are less welcoming for diagnosed students, potentially impacting both their current and future educational experiences negatively (Mannuzza et al. 1997; Metzger and Hamilton forthcoming; Rogers et al. 2009). As is evident in the findings above, even as early as elementary school, teachers' beliefs, and understandings about the ADHD diagnosis shape not only their perceptions of their diagnosed students, but also their relationships and interactions with these same students.

Furthermore, obtaining a diagnosis is often something that guardians seek, to ensure that their children receive all accommodations possible—e.g., academic and dietary adaptations, IEP plans and one-on-one resource aides (Arcia et al. 2000; Ohan et al. 2011). However, as this research indicates, without high levels of positive classroom

behavior or familial income, or an IEP on file at school, an ADHD diagnosis leads to poorer relationships between students and teachers. This suggests that guardians may be in a bind; seeking a diagnosis might provide some accommodations, yet it might come at a cost to their children's educational experience.

Interestingly, this research also indicates that having an IEP on file with the school might be helpful and work to protect their diagnosed student from developing more negative relationships with their teachers. Not only does an IEP provide accommodations for students, it also may be helping medicalize an ADHD diagnosis, thus making it perceived as less negative. It is possible that an IEP signals a "real" problem that the student is having, so teachers are more willing to help and accommodate, or at a minimum, be less likely to hold their diagnosis against them. More research needs to focus on the differences that diagnosed students with and without an IEP encounter in school settings.

Overall, in comparison to their non-diagnosed peers, students diagnosed with ADHD are more likely to develop and have poor student-teacher relationships. The implications that an unfavorable student-teacher relationship has on a diagnosed student's school experience could be significant. Academic achievement (Crosnoe, Johnson and Elder 2004; Hamre and Pianta 2006; Konishi et al. 2010; Lundberg and Schreiner 2004; Reyes et al. 2012; Thijs and Fleischmann 2015) and perceptions of academic performance (Metzger and Hamilton 2020), in particular, can all be influenced by the quality of the relationship that a diagnosed student develops with their teachers.

Students diagnosed with ADHD overall have a more difficult time in school as they continue through the education system (see DuPaul et al. 2009; Kent et al. 2011;

Vance and Weyandt 2008). Research tends to show that ADHD diagnosed students have bad academic outcomes and school experiences. However, this project suggests that these bad outcomes and experiences may, in part, result because of how diagnosed students are viewed and perceived and are not reflective of their actual abilities (see also Metzger and Hamilton forthcoming). These negative outcomes could be a response to the stigma associated with a diagnosis of ADHD.

The quality of student-teacher relationships matters for success at all levels of education, especially for students diagnosed with ADHD. Encountering more positive relationships with teachers may help to counteract prior negative experiences in school and encourage more participation. Without the encouragement that comes with positive student-teacher relationships, ADHD diagnosed students may be set up to struggle relative to their undiagnosed peers. These relationships may potentially set a problematic precedent for what ADHD diagnosed youth can and cannot do.

### **Chapter 3. Qualitative Methodology**

Combining the use of quantitative and qualitative methods is a contribution of this dissertation. Mixed methodology—integration and synthesis of both quantitative and qualitative data—has become much more prevalent in social science research, even being recognized as essential in various outcome-oriented fields (McCusker and Gunaydin 2014). While quantitative data allows for generalizable patterns to be established, qualitative data highlights the how and the why, as well as underlying mechanisms (Jones 1997). Johnson and Onwuegbuzie (2004), suggest that there are several other strengths of mixed methods: it allows for a broader and more complete range of research questions, compensates for the weaknesses of each individual method, and can provide stronger evidence through the corroboration of findings. Together quantitative and qualitative methods are powerful and provide pragmatic advantages when studying complex questions (McCusker and Gunaydin 2014).

For this project, the quantitative data discussed in the previous chapter allow for an exploration of how an ADHD diagnosis and label factor into the relationship that a student has with their teacher. Despite having positive teacher rated classroom behavior, the results suggest that students with ADHD have poorer student-teacher relationships. Because the data utilized in the quantitative component is nationally representative, we can thus generalize these results to help understand this as a trend that, on average, occurs for students with ADHD in the classroom. But these data cannot help us the mechanisms that may be producing poor relationships.

For a better understanding of the processes behind negative teacher and diagnosed student relationships—and possible variation—I turn to my qualitative data. The



qualitative data that was collected on behalf of this project explores perceptions of ADHD by analyzing what teachers and school personnel say about ADHD, as well as how they act towards their diagnosed students. Below is a discussion of what this qualitative data looks like and how it was gathered.

### ***Gaining Access to Local Schools***

Before finalizing the details of this project, I needed to ensure that I would have access to my target population—students with ADHD and their teachers in the public education system. This required that I figure out the process to conduct research in my local school district. Without knowing anyone that worked in the district personally, I relied on faculty connections with principals in local elementary schools, of which their children attended. Contact was made with two principals in the hopes that they could provide information on how to conduct research in their schools. After several attempts, I received a response from one principal that included instructions on how to get a research project started in the Ponderosa Valley School District, which is located in the San Joaquin Valley (PVSD): create a proposal for the proposed project (see Appendix 3.1 for instructions and proposal) and meet with the Assistant Superintendent of Educational Services to discuss the proposal and project.

While working on the proposal, I reached out to the Assistant Superintendent of Educational Services in an effort to set up a meeting to discuss my project. It took a few tries, but a meeting was ultimately scheduled for December 2016. Given my population of interest is not only children, but also children with a diagnosis of ADHD, preparation for this meeting was complex and crucial to my admittance into the PVSD.

Meeting with the Assistant Superintendent of Educational Services proved to be successful. The Assistant Superintendent was supportive of my conducting research in the PVSD and even offered feedback on how to go about this research. Part of the meeting consisted of the Assistant Superintendent reviewing my student interview protocol, for which it was suggested that instead of studying and interviewing elementary aged students, the targeted age range should be middle school because these students would be able to more adequately answer the questions I would be asking. I left the meeting with the support of the Superintendent and her promise to find schools that fit my criterion—ADHD diagnosed students in both grade level and advanced level classrooms.

Preparation of the rest of my project materials began after this meeting because without Institutional Review Board (IRB) approval I would be prevented from research in the PVSD, despite having the Assistant Superintendent's approval. I continued to keep in contact with the Assistant Superintendent and shared the project materials with her as they were created, as well as requested an approval letter to add to my IRB application. This letter was included with the rest of my materials for IRB and I received approval in October 2017. Once IRB approval was received the Assistant Superintendent was notified and we met again to figure out which schools would be ideal for the project and what exactly needed to be accomplished while in the schools.

After our meeting, it was difficult to get in contact with the Assistant Superintendent as she was extremely busy. I made the decision to spontaneously drop by her office in the hopes of just checking into the progress of access to the schools we discussed. By chance on the day that I showed up to her office, she was in a meeting with

a Special Education Specialist in the PVSD, who I was subsequently introduced to. The Special Education Specialist and I met, so that she can aid in getting in contact with the local middle schools. With her guidance, I sent out emails to the four middle school principals that acknowledged my approval from the Assistant Superintendent and the fact that I was working with the Special Education Specialist on the project.

Within a few days, I had received a response from one of the principals and set up a meeting with her to review my proposal, establish my needs for the project and determine whether or not any of her students would fit my criterion. We met a few weeks later and discussed the scope of my project and how her school could support those needs. This principal worked with her nursing staff to identify which classrooms contained students diagnosed with ADHD across different academic tracks. On my behalf and with a summary statement of research, she reached out to the teachers of the classrooms that would work for my project to elicit their participation. A few teachers emailed either myself or the principal to let us know that they would be willing to allow me to observe their classrooms. About a month after meeting with this principal, I began observing classrooms at her school.

Unfortunately, my success in gaining access to middle school classrooms was limited to this site initially. One other principal responded to my follow up email and I was able to meet with him to discuss the project. He was willing to help try to find classrooms at his school but suggested that I wait until the new school year to begin observations, as we were nearing the end of the school year (mid-February) and several weeks of testing, which he stated I was not allowed to observe. While presenting my project to this principal he made a few suggestions, the most notable being that I should

modify my title; he suggested that I replace the word “Track” with “Strategic Placement.” He suggested this change because they figured out that tracking was occurring, so they changed the phrase to strategic placement. Instead of addressing the factors for why tracking was occurring in schools they rephrased it to make it sound more positive, thus potentially hiding and reproducing more inequality based on where students are “strategically placed” in school. This suggestion speaks to the necessity for this type of research.

Initially, the focus of this project was on track placement and the impacts that an ADHD diagnosed student’s track placement has on teachers’ perceptions of their achievement. As is common in qualitative research, my initial research topic shifted from tracks and diagnosed students and instead placed the focus on teachers and school personnel, while still retaining a sampling strategy of both advanced and regular grade level classrooms. The in-depth inclusion of teachers/school personnel and students in this project was too much to accomplish. As my project and research progressed it became obvious that the focus on teachers and school personnel was crucial to understanding how ADHD is perceived and dealt with in the classroom.

Per the principal at the second middle school location suggestion, I waited to observe his school until the following academic year. So, I reached out to the principal in August in an attempt to figure out which classrooms I would be able to observe. After reaching out I was met with the news that the principal had been moved to another school and was provided with the contact information for the new principal. This meant that I had to start the process all over again with the new principal.

Luckily, the new principal was happy to meet with me to discuss the possibility of observing classrooms on his campus. The entire project was presented once again to this new principal and he was willing to let me conduct research on his campus. It was up to him to help find the correct classrooms for my research and in order to do this he reached out to his school psychologist. She asked that we connect, so that I could explain to her in more detail the classroom criteria I needed to meet for the project. Subsequently, she located a few classrooms that would work for this project and connected me to those teachers via an introductory email on her behalf. I only got traction from one teacher and did observe his classroom (and later interviewed him); however, once in the classroom I realized that there was not much to gain from observing his classroom, as there was only one student that was diagnosed and there was no frame of reference to any other students. I needed to be able to compare this classroom with another and unfortunately that was not possible. Thus, I will still on the hunt for a comparison site.

While trying to find another research site, I was still conducting classrooms observations at my initial school site—approximately, 6 hours a week were spent at this school for an entire academic year. It was during my time at this site that one of the teachers I observed provided me the correct contact information for one of the other middle schools. She knew that I needed to have a comparison school and had inquired about whether or not I had found one. I let her know that I had not been successful and was still emailing the two other middle school principals in the hope that they would let me observe at their school. Fortunately, her husband taught at one of the other sites and she let me know that I should instead be emailing the assistant principal because she is the one that really “runs” the school, not the principal.

This suggestion proved to be successful and I was able to meet with the assistant principal. We discussed my project and how I wanted to observe classrooms—both advanced and grade-level—with students diagnosed with ADHD to understand their interactions with teachers. She was on board to help find classrooms that met my criterion and let me know that she would email me once she had figured out the correct classrooms. We met a few days later to begin my observation of 6 classrooms on her campus (below you will find a discussion of the classes I observed). I saw a variety of teaching styles and classroom setups.

Although gaining access to classrooms was difficult and posed many challenges, having access to classrooms was vital to the completion and success of my project. Not only was I able to explore what occurs in classroom settings for students diagnosed with ADHD, but also, I created connections with teachers and a few students that I would interview as the final stage of this project. Most significantly, though was the fact that I had potentially opened the door for other students and faculty to conduct research in the Ponderosa Valley School District. In fact, my connection to the Assistant Superintendent of Educational Services has been utilized by a colleague in the Psychology Department to conduct research as well.

### ***The Schools***

There are 4 different middle schools within the Ponderosa Valley School District. Time was spent in 3 of the schools and all are located in various parts of the city; a city which is characterized by heavy agricultural production. The city has a population of approximately 83,000 and the median household income is \$40,704 with a 30.2% poverty rate (Census). The racial makeup of the city is primarily white (53.3%), followed by

Hispanic (52.2%), Asian (12.4%), Black or African American (5.7%), American Indian and Alaska Native (.8%), Native Hawaiian and Other Pacific Islander (.1%), and Two or more races (5.1%) (these estimates have been documented by the Census).

*Sutton Middle School.* This school sits in a more affluent part of the city; it is close to the only hospital and the university, as well as the newer housing developments in town. Given its proximity to the university, many of the neighborhoods surrounding the school are inhabited by faculty, staff and students of the university; however, not all students from the adjacent neighborhoods attend this school, as there are many inter-district transfers to a middle school with the “Gifted and Talented Education” Program.

The school serves a diverse population with 47.8 % of its student body categorized as Hispanic, 29.8% of the students are white, 12.5% are Asian, 5.2% are African American, 0.5% are American Indian, 4.3% are classified as two or more races, and 54.7% of the students receive free or discounted lunch. For every teacher there are approximately 26.6 students. Sutton is the highest ranked middle school in the PVSD, sitting in 1299<sup>th</sup> place out of 2,623 California Middle schools<sup>6</sup>.

*Polson Middle School.* This campus is unique in that the surrounding neighborhoods are characterized by both a desired area for families and low-income housing. On the perimeter of the school grounds sits an apartment complex that serves low-income individuals, while on the opposite side of the school sits one of Colvin city’s most sought after neighborhoods—Ragsdale, where some professors live and even a California State Assembly Member.

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<sup>6</sup> This data has been pulled from school schooldigger.com, which pulls it from four sources: National Center for Education Statistics, U.S. Department of Education and the U.S. Census Bureau and the California Department of Education.

The school itself, though, serves a large population of low-income students, as indicated by the large proportion (86.3%) of students who receive free or discounted lunches. This school has one of the most sought after “Gifted and Talented Education” Program, so many students transfer to this school to be a part of this program. Out of all the schools that I observed this was the least white campus I studied: 69.7 % of the student population are Hispanic, 15.1% are white, 7.8% are African American, 4.2% are Asian, .3% are American Indian, .2% are Pacific Islander, and 2.8% are categorized as two or more races. There are approximately 25.5 students for every teacher at Polson. Out of the 4 middle schools in the district Polson is ranked the 3<sup>rd</sup> worst out of the 4, as it scored 1761<sup>st</sup> place out of 2,623 California Middle schools.

*Charter Middle School.* The neighborhood that this school sits in is comprised of older single-family homes and a recently built retirement community. Not far from the campus, many university students find housing in some of the newer homes and apartments in nearby neighborhoods. The school has a varied student population; 59.8 % of the students are Hispanic, 19.5% are Asian, 10.7% are white, 6.7% are African American, .2% are American Indian, .2% are Pacific Islander, and 3% are classified as two or more races. Similar to Polson, Charter also provides an education for many students who come from low-income households, signified by the sizable amount of the student body who receive free or discounted lunch, 79.5%. For every 26.6 students there is 1 teacher on campus. Charter is the second highest ranked middle school in the PVSD, at 1708<sup>th</sup> place out of a total of 2,623 California Middle schools

There was only one middle school that I did not have the opportunity to observe or interview teachers at—Howe Middle School. This middle school is located in the least



affluent area out of the 4, on the “other side of the freeway,” with 92% of its students receiving free or discounted lunch. Sitting on the “other side of the freeway” indicates that the area is characterized by high crime and poor housing conditions, as many residents of Colvin City use this phrase to differentiate between the “good” and “bad” parts of town. It has the highest student-teacher ratio of 27.8 students to every teacher and is ranked the lowest out of the 4 middle schools, 2325<sup>th</sup> place out of 2,623. Howe would have been great to observe because I would have been able to gather data on what is considered the worst middle school in the PVSD and compare it to more affluent schools to determine if the location and perceptions of schools influences teachers’ understandings of the ADHD diagnosis and their diagnosed students.

Though unfortunate, it is not surprising that I was not able to access any teacher demographic information for each school. Due to the size of the schools, it would be difficult to keep teachers’ identities anonymous, as providing this information might make it possible for teachers to be identified. For this project, the differences lie across teachers rather than across schools, thus the relevant unit of observation is the teacher and the classroom environment that they create. Below you will find a description of not only the classrooms, but the teachers to offer context for the environments I was able to explore.

### ***The Classroom Observation Process***

As part of my qualitative research, I had the opportunity to observe middle school classrooms. In each of the classrooms that I observed I sat towards the back of the classroom and watched student and teacher interactions, as well as student and student interactions silently. There were times that I had students ask me what I was doing, to

which I responded with a general statement about being a graduate student at UC Merced and observing their classroom was part of my dissertation research.

During my time in the classroom, teachers on several occasions would talk with me not only about my research, but also about students. These conversations were not elicited and instead resulted because the teachers initiated them. When teachers inquired about my research, I would inform them that I was interested in learning how students with ADHD interact in the classroom; while this is true I would omit any specifics for what I was looking for and the fact that I was especially concerned in their interactions and subsequent treatment of diagnosed students. At other times, teachers would request my opinion on how to handle certain students. In these cases, I would let them know that I am not professionally trained to assess students and that I would need more information to actually make suggestions (thankfully this was rare, and my response was normally accepted).

Probably the most common interaction I had with teachers revolved around acknowledgment of their teaching strategies and comments about students overall. For example, teachers would look to me for affirmation when they would identify students as having ADHD even without a diagnosis: a male student stands up while they are tasked with exchanging assignments to grade, so the teacher tells the entire class to exchange the assignments “quickly.” After announcing this to the class she gives me a look in response to the male student’s behavior, to which I just smiled. That look, while nonverbal, communicated to me that she was correct in her assumption that the student has ADHD—even without an actual diagnosis—because of the classroom behavior he was exhibiting—standing when he should be exchanging his assignment with a fellow

classmate. This teacher previously provided me with several student's names that she believed to have ADHD and this male student happened to be on that list.

Despite the interactions that I did have with teachers and students, I was able to conduct approximately 153 hours of observations over 34 different school days. A majority of that was spent at two different school sites and only 1 hour and 35 minutes was spent at the third school site. On average, I spent at least one full school day a week at one of the schools for an entire academic year. All the teachers that were observed were subsequently interviewed. Below I will discuss the types of classrooms and the different teachers I observed.

*The Teachers and Their Classrooms.* In total 14 teachers and teachers' aides were observed in 12 different classrooms. Ten different subjects were observed: (1) Core, which includes both Social Studies and Language Arts (both advanced and grade-level instruction); (2) Math; (3) Science; (4) Advanced Art; (5) Physical Education; (6) Technology, an elective; (7) English Language Development/Intervention; (8) Special Education; and (9) Study Skills (this course is only for students that need to get their test scores and grades up. Students can test out of this course and enter into an elective). Core was the most common subject that was observed, as 5 of the classrooms studied were Core classrooms. With the exception of Core, which makes up two class periods, all the other subjects lasted for one class period. Students spend a lot of time in school with a majority of that time spent with their Core teachers for two class periods.

*Mrs. Nash.* She has taught the middle school grade range—6<sup>th</sup> through 8<sup>th</sup> grade—for 29 years at the same school, Polson. Currently, she teaches Core—Social Studies and Language Arts—both advanced (called G.A.T.E. program in the PVSD) and grade level

curriculums but has also taught Special Day Class (Special Education), Resource, and English Language Development. She chose to teach because school has always been her “comfort zone.” Mrs. Nash is in charge of the student honors club, CJSF, on campus, which requires students maintain high GPA’s and apply for a spot in the club. Being a part of this club can lead to special graduation perks (i.e., different colored ropes) and sometimes even field trips that the students must fund through fundraisers.

Upon entering her classroom, you might notice that her walls (especially towards the end of the school year) are filled with student work. Her desk sits at the back right of the classroom and along with the student desks face the whiteboard at the front of the room. On the whiteboard students can find their homework written down for each day of the week, which they are supposed to write down in their agendas. Desks are grouped together, and desk mates share a box of school supplies (e.g., pencils, highlighters, erasers, etc.) that they can use during their time in her class, but they must remain their when they leave. If students need to borrow other items of Mrs. Nash’s she requires that they provide her with collateral (i.e., student identification card), so that they return her item. She often utilizes a projector for lessons and video clips, as well as Chromebook work for the students. Observations were completed in this class between March and June of the 2017-18 academic year, and August through December of the 2018-19 school year. The majority of my observation data comes from this classroom, as it was the first, I gained access to while I struggled to get into other classrooms.

*Mr. Thompson.* He has taught Core—Social Studies and Language Arts—at the seventh and eighth grade level for 18 years at Charter and joked that they will, “bury me here I think.” Becoming a teacher was his career choice because he loves working young

people and encouraging them to reach their “full potential.” He also is in charge of the student band club that meets after school, where he teaches students how to play musical instruments.

His classroom has some student artwork on the walls and shelves, and the instruments that are used for the band club take up some space on one side of the classroom. Mr. Thompson’s desk sits at the front of the room with the white board behind it and the students desk facing his desk. Behind where the instruments sit is a file cabinet that contains miscellaneous classroom items—pencils, paper, etc.—that he allows students to use without asking. The lessons observed revolved around group work and active classroom discussion of the group work. I observed this classroom a few times during the 2018-19 school year.

*Mr. Davidson.* He has been teaching for 19 years at the middle school grade range, 6<sup>th</sup> through 8<sup>th</sup> grade. He expressed that he chose to teach as a career because of the coaches and teachers that “made an impact” on him as he came into contact with the as he was growing up. At the time I observed his classroom he was teaching Core—Social Studies and Language Arts. The assistant principal connected me with Mr. Davidson because he had a student in his class that had switched from Polson whom I had observed while at Polson. This was supposed to allow me to observe the same student in two different school environments; however, upon arriving in Mr. Davidson’s classroom I realized that the assistant principal sent me to observe the wrong student (this was interesting because it meant that she assumed that was the correct student for me to observe; I will expand on this later in my qualitative chapters). I also believe that he was a baseball coach for the middle school.

Mr. Davidson's classroom was a little barren, but this could have been due to the fact that we were getting close to the end of the school year. His desk resided on the side of the room and the students faced one of the whiteboards. Their desks were set up in groups of 4 and he allowed them to work together quietly while they were working on their Social Studies assignment. Observations took place in April 2019.

*Mrs. Garza.* She has been teaching for over 30 years and is considering retiring soon but is having a difficult time deciding if she will or not because she “really” enjoys what she does. She has taught students who were very young all the way up to adults, at adult school, where these adult students are working towards earning their diplomas. Currently, she teaches Core—Social Studies and Language Arts—to 7<sup>th</sup> and 8<sup>th</sup> graders, as well as helps students learn foreign languages with Duolingo. She has had experience working in the PVSD, the Colvin High School District, and the Planada School District.

Her classroom is filled with posters and student work, and lots of different books. She has two different whiteboards: one has the lesson plans written on it and the other is what she uses when she is teaching. She regularly uses a projector and videos for more interactive lessons, as well as engages her students in classroom discussions as she teaches. Her desk sits at the back of the room and behind her student's desks, which face the front of the classroom where she normally goes over the lessons. I was able to observe her classroom from December 2018 through June 2019.

*Mrs. Kramer.* She has been teaching for 8 years at the middle school grade range—6<sup>th</sup> through 8<sup>th</sup> grade—at public schools only. After graduated she did have a brief stint as a long-term sub in a 4<sup>th</sup> grade classroom also. Teaching became her career because it was something that she could do with her degree of English, and she also had

teachers while she was in school that had “inspired” her. Core is what she currently teaches for her 7<sup>th</sup> graders.

Due to it being the end of the year, her classroom was relatively barren. But it was obvious that she had posters and potentially students work on the walls, as they were stacked up and their outlines were visible where they had been placed on the wall. Her desk sits at the back of the room, with her student’s desks facing the front of the room where the whiteboard is. Mrs. Kramer happened to have the student that had been transferred from Polson middle school in her classroom and I was connected to her through Mrs. Nash at Polson, who knew what classroom he was in at Sutton. I had the opportunity to observe her classroom in May 2019.

*Mr. Wright.* He currently teaches Math, both advanced and grade level curriculums, to 8<sup>th</sup> graders. He has been teaching for 20 years in the classroom in the 5<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grade, and has also had experience teaching children in a church setting, which is where he credits learning to “manage a bunch of kids.” Working with the children at the church was the main reason that he decided to become a teacher, as well as his degree in math.

Mr. Wright’s classroom has whiteboards on almost all the walls and a chalkboard on the remaining wall. There are math posters hanging in the remaining spaces on the walls. His desk sits at the back of the room and the student’s desks face the front the front of the room. He uses the whiteboards to have students do math problems, reviews lessons using PowerPoint, and allows students to use their chrome books to complete assignments. Observations occurred in his classroom between December 2018 and June 2019.

*Mr. Poole.* He has been teaching 7<sup>th</sup> and 8<sup>th</sup> grade Science for the past 24 years and also taught 1 year of high school science all at public schools. Teaching was a natural choice for Mr. Poole, who has always had a passion working with kids. It allowed him to put his two passions together though, “working with kids and teaching science.” He also has some experience being a coach and a Sunday school teacher.

His classroom is the most nontraditional, as it has lab setups on the perimeter of the room and a lot more space than most of the other classrooms I observed. The student’s desks face the whiteboard at the front of the room and his desk sits on the right side of the classroom. This was the only teacher that I observed who had a teaching assistant in a few of his classes. I observed his classroom from December 2018 to June 2019.

*Mrs. Hansen.* She has been teaching Art, both advanced (and grade level curriculums, for 17 years at Sutton Middle School. Her journey to become a teacher is the most unique that I encountered. While knowing that she wanted to teach from a young age, she did not start teaching till later on in life. This is because there were a lot of people going into teaching and she was advised to not go into teaching. So, she did lots of other things, however, teaching was still her “calling” and “made sense” for her to do. Art was also something a little unexpected, as she did her student teaching in Core and only had a supplemental credential in Art in case, she wanted to pursue that curriculum. It just so happened that the first teaching position she obtained was as an Art teacher.

Mrs. Hansen’s classroom is covered in art supplies and student artwork. Her students have cubbies where they are allowed to store their work for class. Their desks are set up in groups of four and her desk sits at the front of the room in front of her



whiteboard. She uses a projector to show the students different art styles and to review their assignments and she plays music while the students work on their projects.

Observations took place in her class from December 2018 through June 2019.

*Mrs. Bauer.* She has been teaching Physical Education (P.E.) for 18 years at various grade levels—6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> and 10<sup>th</sup> grade—for public schools. She also spent a short time teaching younger kids in the classroom, but quickly went back to P.E. She chose to teach P.E. because she herself is “passionate” about it and she felt like she could “motivate” her students.

Mrs. Bauer’s classroom is not a classroom at all. The students meet in a locker room (gender specific) to change into their P.E. uniform (a school t-shirt and shorts or pants). After changing they line up outside with their P.E. teacher and warm up by stretching before they begin any physical activity. Once warming up is complete they either stay outdoors or go inside the gym for the day’s activity. Mrs. Bauer’s office is located inside the girl’s locker room. I was able to observe her “classroom” from December 2018 all the way through June 2019.

*Mrs. Wheeler.* She has been teaching at the middle school level for 7 years, but she started as a clinician and also worked in a second-grade classroom. She has been working with students in total for 9 years. Currently, she teaches Technology, which is an elective that the middle school students can choose as one of their classes. With a business degree Mrs. Wheeler initially thought that she might open a restaurant, however, after having her own children she reevaluated and decided to take up teaching. Once she started as a substitute teacher, teaching just felt “right” to her and everything “just clicked.”

Mrs. Wheeler's classroom has computers around the perimeter of the classroom where the students work independently on their assignments. In the center of the room, she has tables that I did not see utilized while I was present but could be used when they have their robotics seminars throughout the school year. Her desk sits at the front of the classroom with the whiteboard behind her. I observed her classroom in March 2018.

*Mrs. Sanchez and Ms. Daniela.* Mrs. Sanchez has been teaching 7<sup>th</sup> and 8<sup>th</sup> grade English Language Development (ELD) and Intervention for 7 years. She has had lots of experience teaching kids from the age of two through the age of seventeen and has even had some experience teaching at a charter school. She has found teaching to be a "good fit" and enjoys "working with children." Ms. Daniela is Mrs. Sanchez's teacher's aide, and she comes in to assist any students that might need extra help in her class and other classes on campus. She has been working as an aide for four years and a substitute teacher for two to three years. She has primarily work with kids in kindergarten through the 8<sup>th</sup> grade.

Mrs. Sanchez's classroom is fairly barren with only a few posters on the wall and a chalkboard at the front of her classroom. Her desk is in the corner of the room and her student's desks face the chalkboard. She regularly has the students use Chromebook's to work on their assignments and plays games with the class, where she sometimes has groups of students compete against each other, to help them with their English skills. Observations occurred in her classroom from December 2018 through June 2019.

*Mrs. Martinez and Mrs. Becker.* Mrs. Martinez has been teaching more than 30 years from 4<sup>th</sup> grade through the 8<sup>th</sup> grade. She has taught some regular education; bilingual education and the majority has been special education. Ten years of her

teaching experience was actually in private school and the remainder in public schools. Teaching was her second option for a career, as she wanted to be a doctor originally, but failed the requirements to become a doctor. So, she set her sights on helping students with special needs. Mrs. Becker is a resource specialist that works in Mrs. Martinez's classroom. She has been working with children for about 30 years and has working with young children (three to five years old) with special needs for 15 of those 30 years. She chose to become a resource specialist because of an incredible mentor that she had, and she was "inspired" by her to work with children.

Mrs. Martinez's classroom has rows of desks facing the whiteboard at the front of her classroom. Her desk, along with Mrs. Becker's desk, sit on the left side of the classroom. There is also a student desk that faces a file cabinet and is labeled the "time-out" desk. Mrs. Martinez utilizes the front of the classroom to teach the students their lessons and she regularly walks around the class to help students that might need extra help. Mrs. Becker also helps students either by going over to the student's desk to help or she has students come to her desk and she works with them on whatever they need assistance with. Sometimes she even gives students quizzes in nontraditional formats (e.g., oral vocab tests rather than on paper). I observed this classroom in March and April of 2018.

### ***The Interview Process***

Along with conducting classroom observations, I also interviewed a few students diagnosed with ADHD and teachers/school personnel, some of which I observed. These interviews were intended to help understand student experiences and teachers'/school personnel's perceptions/understandings of ADHD across track placements. To encourage

participation and to display my gratitude, all students and teachers/school personnel that were interviewed were given a \$10 gift card (either Amazon or Starbucks) after completing the interview. Guardians were asked to choose which gift card they preferred for their child, though all of them said their child was allowed to choose on their own. Teachers/school personnel could choose either gift card, though there were a few that felt it not necessary to take the gift card, but I made sure to leave it with them before I left. Interview protocols were developed for both the student and teacher/school personnel interviews (please see Appendix 3.1 for reference). Any information acquired from the teachers, interviews, or my observations was not shared with the guardians/students or teachers/school personnel.

Once again, the focus of this project shifted from students to teachers and school personnel. Due to this shift, only 3 student interviews were conducted. Though I had only a few student interviews, I still learned a great deal about what the students understand about their diagnoses and how they have impacted their educational experiences. Future research will aim to expand the amount of student interviews, to continue to explore how students identify with their diagnosis and the impacts of an ADHD diagnosis.

*Teacher/School Personnel Interviews.* Gaining participants for the teacher interviews was much easier than for the student interviews. I began by first emailing the teacher whose classroom I observed at Charter, whom I had not observed for several months. He agreed and I interviewed him the following week. Next, I reached out to the principal at Polson and the assistant principal at Sutton and asked that they please distribute teacher interview flyer to their teachers. A few teachers reached out to me as a result of the email to set up interviews. I then emailed all the teachers whose classrooms

that I observed to elicit their participation and followed up in person to schedule their interviews. This left me with 18 interview participants and in need of 12 more participants. A few of the teachers that I have already interviewed and/or observed reached out to their colleagues and helped me gain another 7 interviews. For the remaining 5 interviews, I either emailed a teacher or walked into their classroom, as another teacher suggested I reach out to them.

In total, I conducted 30 interviews with teachers, teachers' aides and other school personnel. This includes 25 teachers, 3 teachers' aides, 1 school therapist, and 1 school psychologist. The demographics of my teacher/school personnel interview population are as follows: 12 males, 18 females, approximately 7 Hispanic, 1 Black, and approximately 22 white participants. Their experience working with children and in classrooms ranged from 1 year to more than 30 years. The subjects they taught also varied: Social Studies, Language Arts, Science, Math, Art, Physical Education, Technology, Advanced Via Individual Determination (AVID), Special Education, English Language Development (ELD) and Intervention. Across the various subjects, I interviewed teachers who taught curriculum on advanced and grade-level academic tracks, with some teachers actually teaching for both tracks.

Except for one of the interviews, all were conducted in person (one occurred over the phone). After receiving consent, the interviews took place and ranged from 30 minutes to one hour. The questions did not refer to any particular student in the classroom, so that I could gain a true understanding of how teachers view the ADHD diagnosis, not just their diagnosed students. The topics covered in the teacher interviews will include their definitions of ADHD, what ADHD looks like in their classrooms, if

they have ever referred a student, perceptions of how effective guardians are in dealing with the diagnosis and symptoms, perceptions of how the diagnosis affects the students' academic achievement, how the diagnosis affects students socially, how they help their diagnosed students, and perceptions of effective and ineffective treatments.

### ***Qualitative Coding***

Coding this qualitative data has been an extensive process. I first, focused on becoming familiar with the data by reading through both the interviews and my field notes from my classroom observations a few times. Next, I coded the various interview questions (discussed below) to begin forming patterns between the teachers and school personnel and their understandings and perceptions. Then, I looked specifically for patterns in the teacher interviews in an attempt to understand what teachers really know about ADHD and how they treat their diagnosed students. I found that the interviews were optimal for exploring individuals' personal histories, perspectives, and experiences. While the classroom observations allowed for the collection of data within naturally occurring settings to see what was really happening inside middle school classrooms.

Inductive reasoning was utilized to analyze the teacher and school personnel's responses to the questions that informed this dissertation. To gauge teacher and school personnel's understandings of ADHD, the analyses rely heavily on the systematic coding of the two questions that specifically ask them about what ADHD is: (1) what do you think ADHD is?, and (2) can you describe to me what that might look like in a classroom setting? These two questions also inform the next chapter of this dissertation.

The classroom observation data has subsequently been used to support these patterns by displaying how teachers actually act on their understandings of the ADHD

diagnosis. The field notes collected during the classroom observations were read several times to determine how to code teacher and school personnel's behavior. This allowed me to look for patterns amongst the different types of treatment (i.e., negative, positive, and either/or). I then compared the types of treatment across the various teacher and school personnel categories (see next paragraph) to ascertain how ADHD diagnosed students were treated in the classroom. This data and its related analyses is discussed in chapter 5. In chapter 6, data on guardians is introduced through the form of classroom observations and interview questions, with a specific focus on the following question: What do you think parents/guardians should do in dealing with their child's ADHD? Together these interview questions and classroom observations help to uncover what teachers perceive when it comes to ADHD diagnosed students and their families and how these perceptions might impact their treatment of diagnosed students.

My review of the teacher interview questions noted above and my field notes from my classroom observations has led me to uncover five categories that the teachers fit into with regards to their understandings and perceptions of ADHD: (1) skeptics, (2) unfamiliar, (3) misguided, (4) familiar, and (5) experts. The next chapter includes a discussion of each of these categories. These categories will be utilized in the following chapters to break down what teachers understand and perceive about ADHD and how they treat their diagnosed students. The first qualitative chapter will explore teachers views of ADHD by addressing the following questions: what do teachers say about ADHD? The second chapter explores how their understandings matter, by focusing on how teachers respond and treat their diagnosed students. The third and final qualitative chapter will work to understand how impressions of the family shape teachers'

perceptions and understandings of an ADHD diagnosis. Also, in this chapter, an investigation of how G.A.T.E. placement is associated with the family unit, making academic track placement and teachers' perceptions of their students are intrinsically connected.



## **Chapter 4. Understanding Teachers Beliefs and Cultural Understandings of an ADHD Diagnosis.**

*“[ADHD is] like, like [a] squirrel moment, you know?”— Mrs. Sanchez*

There is very limited research on how teachers and other school personnel actually understand and make sense of ADHD in their classrooms. This lack of awareness is quite problematic, given how much time students spend with their teachers and on school grounds with other school personnel on a yearly basis. This chapter thus seeks to examine teacher perceptions of ADHD through the data collected in teacher and school personnel interviews.

The chapter will primarily analyze responses from teachers and school personnel—teacher’s aides, school counselors, school psychologists, etc.—to the following two questions: (1) what do you think ADHD is?, and (2) can you describe to me what that might look like in a classroom setting? Answers to these questions were also utilized to inform the creation of five different categories capturing respondents’ understandings and beliefs about ADHD. In general, this chapter will show that, though different, all the categories beliefs about ADHD are related to poor classroom behavior. These beliefs often guide how teachers and school personnel treat diagnosed students (see Chapter 5). Below I described how different groups of teachers/school personnel display different beliefs about ADHD.

[TABLE 4.1 ABOUT HERE]

### ***ADHD Cultural Beliefs***

After collecting all my data, I sought to identify common themes with regards to how teachers and school personnel understand an ADHD diagnosis and ultimately treat their diagnosed students in relation to their understandings. Overall, five main categories were identified: (1) the skeptics, (2) the unfamiliar, (3) the misguided, (4) the familiar, and (5) the experts. The experts category includes two subcategories: the personal experts and the professional experts.

The following sections will discuss what each of these categories are, the qualifications for being included into each group, who the teachers and school personnel are in each of the categories (see Table 4.1 for a demographic breakdown for each category), as well as the associated understandings and beliefs about ADHD as a diagnosis (see Tables 2 and 3 for a breakdown of these understandings and beliefs by category).

[TABLE 4.2 ABOUT HERE]

### ***The Skeptics***

*What is a “skeptic”?* A skeptic is a teacher or school personnel who does not believe that all students diagnosed with ADHD actually have the disorder. Some say a diagnosis occurs only when a student is placed in a classroom environment, thus the “normal” classroom environment is the proxy for their ADHD diagnosis. These teachers and school personnel were placed into this category because they have stated that there are mis- or over-diagnoses of ADHD, that not all diagnosed have “true” ADHD, and/or that their diagnosis is a result of being in a traditional classroom environment. In other words, they expressed skepticism when talking about what ADHD is and why a diagnosis occurs.

For example, Mr. Hubbuch, who has been working as a School Psychologist for 21 years, believes ADHD, “is over diagnosed, I think that it is being used as a, um, easy answer for a complex problem.” Likewise, Mr. Warner, who has been teaching 7<sup>th</sup> and 8<sup>th</sup> grade Math for 18 years, expressed a similar, yet different skeptical belief, “So I have several diagnosed every year, but I will honestly [say] over the course of 14 years, I've seen maybe a half dozen kids that I thought were truly ADHD.” These two examples highlight the doubt of skeptics with regards to ADHD diagnoses and their diagnosed students.

When discussing ADHD, the skeptics indicated that they did not see ADHD to be a “real” diagnosis. The most common initial response that skeptics used to describe ADHD is simply a regurgitation or explanation of what the ADHD acronym stands for. Mr. Warner, for instance, answers the question by saying, “Attention Deficit Hyperactivity Disorder. I’m thinking of the acronym. It’s the same as ADD, except they’re hyper.” He is not alone in this kind of response, as two other teachers in this category also defer to discussing the acronym.

Most notable for this group is the discussion of the impact the environment has on ADHD. Their descriptions are much less about the environment in general, and more about the classroom environment. Instead of talking about the environment as something that biologically creates ADHD (i.e., Global Warming creates environmental changes that impact reproduction and the fetus in utero) they talk about the environment in terms of how the classroom environment confines students into roles. If students do not fit these roles, then they are labeled as ADHD. For example, as Mrs. Hansen, a 7<sup>th</sup> and 8<sup>th</sup> grade Art teacher, states:

I mean disorder to me is kind of a tricky identifier because...I think it only becomes a disorder because of the requirements of being in a classroom...So that same kid who's identified with attention deficit disorder, it could, it may not be a disorder at all and in many other situations (Mrs. Hansen laughed<sup>7</sup> at the end of this statement).

Here and for this category, the teachers and school personnel are more discerning and critical of what an ADHD diagnosis is.

Although the skeptics believe there is an over- or misdiagnosis of ADHD amongst students, they are very capable of providing a description of what ADHD looks like.

Teachers and school personnel discuss aspects of compulsivity, movement, being fidgety, having issues focusing, and not paying attention and/or being distracted. For example, as Mr. Gonzalez, a 7<sup>th</sup> and 8<sup>th</sup> grade Science teacher describes:

[A] student who's fidgety, tapping his pencil if he or she has one, unable to keep their attention any more than a few minutes at a time. Any stimulus in the classroom, AC, door opening, other students talking, will distract them and they'll become off task.

Mrs. Olsen, a 7<sup>th</sup> grade Core teacher, expresses a similar sentiment, "A child who is not intending to not be on task but because of something that they can't control. They're off task."

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<sup>7</sup> Many of the participants laughed or chuckled when responding to various questions. Laughter, for the most part, is an indication of being uncomfortable with their answer or my question. Participants also laughed as a way to lighten the mood when particularly uncomfortable or difficult questions were asked, or they provided less the pleasant answers.

Here we can see that this category really centers their answers around movement/being fidgety and not being able to pay attention or being distracted. These descriptions are clearly connected to the symptoms that are common amongst ADHD diagnosed students.

*Who are the “skeptics”?* There are 5 teachers and school personnel that fit into this category. The majority of this group has been working with children in some respect from 5 years to 21 years, so they all have quite a bit of experience, though teaching is a new career for one of the teachers. This group includes an Art teacher, a Math teacher, a Science teacher, a Core teacher and a School Psychologist; three are male and two are female and four would be categorized as white and one as Hispanic (see Table 4.1 for descriptive characteristics for each category).

### ***The Unfamiliar***

*What is an “unfamiliar”?* An unfamiliar is a teacher or school personnel who specifies they are not familiar with or do not know very much about not only ADHD, but also how ADHD functions in the classroom. These teachers and school personnel were placed into this category because they express unfamiliarity with ADHD. They might try to speculate about what ADHD is, but are not confident in their answers. For example, they might specifically say “I don’t know” or “I think” in an unsure manner when asked about what ADHD is.

One instance of an unfamiliar is best documented by Mrs. Kramer, who is a 7<sup>th</sup> grade Core teacher that has been teaching for 8 years, when she states, “That’s a great question...I was kind [of] thinking about this before. I’m like, oh, I don’t really know. We’ve never been offered training on it...and I’ve not done a lot of individual research honestly. So... I’m kind of ashamed.” Here we see that she specifically states that she

does not know what ADHD is and at the end of this statement expresses feelings of being ashamed for not having more knowledge of ADHD.

Of all the categories, the unfamiliar were the most likely to mention *both* a regurgitation and/or explanation of the ADHD acronym and difficulty focusing when asked what they think ADHD is. Four of the teachers in this category verbalized statements about the acronym of ADHD, similar to what Mrs. Burnett, a 7<sup>th</sup> and 8<sup>th</sup> grade Clinician, indicates, “So it's been years and years and years since I really kind of dove into reading up on it, but if I remember, it's just there's ADD, ADHD, I believe is the difference with that there is hyperactive.”

While the acronym is mentioned often amongst this group, the most common responses were behavioral descriptions. The typical behavioral response was that ADHD means having difficulty focusing, followed by it is characterized by lots of movement. As is apparent by Ms. Jefferson's, a 7<sup>th</sup> and 8<sup>th</sup> grade Resource Specialist, statement, “I've probably seen it but not really. I think ADHD is a student that can't sit still, always moving, you know, kind of jittery all the time you know. Can't concentrate. That's basically what I think it is.” These sentiments of having problems focusing and an association with lots of movement are quite regular statements amongst all of the categories. Although the teachers and school personnel express unfamiliarity with ADHD as a whole, they are still able to come up with answers when asked to define what ADHD is, which is highlighted by the quotes noted above.

Being categorized as an unfamiliar, also, does not necessarily indicate that their unfamiliarity with ADHD will lead them to also have difficulty identifying what ADHD looks like in the classroom. In fact, the teachers and school personnel in this category, did

not have trouble telling me what ADHD looks like for students in classroom settings. The responses that they provided all touched on the same themes that the skeptics discussed: having trouble focusing, being distracted and/or not paying attention, being compulsive, being fidgety, and most commonly mentioned was movement.

All but one of the individuals in this category talked about movement in their responses; and out of all the categories movement was mentioned the most frequently. In one case, Mrs. Bauer's, a 7<sup>th</sup> and 8<sup>th</sup> grade Physical Education teacher, recounts her experience in the classroom years prior and only discusses movement in her response, "I see a lot of tapping. Not sitting still in the classroom. (laughs) A lot of movement. Basically.... That's it, that, just a lot of movement." This account that only discusses one theme is rare. For this category, movement is normally discussed in conjunction with a few of the other themes. For example, Ms. Jefferson, a 7<sup>th</sup> and 8<sup>th</sup> grade resource specialist, discusses having trouble focusing, movement and being distracted or not paying attention:

You have someone that can't stick to the subject when you, I mean, you give them an assignment. And they're off task, they don't stay on task, they are always moving. Always up out of their seat. Always have something to say, asking questions, you know, something like that. But that's basically what I think it is.

Many of the answers given when asked what ADHD looks like in the classroom were similar to the one that Ms. Jefferson provided. The unfamiliar regularly refer to movement along with references to focusing on the difficulties students with ADHD faced with focusing and paying attention.

*Who are the “unfamiliar”?* This category is composed of 5 teachers—a Physical Education teacher, two Core teachers, a Science teacher, and a Math teacher—two teachers’ aides/resource specialists, and one school counselor, who have all been working with students for 8 years to 23 years. In this group there are five females and five males, with four of them being identified as white, one Black, and three as Hispanic (refer to Table 4.1 for descriptive characteristics for each category).

### ***The Misguided***

*What is a “misguided”?* A misguided individual is a teacher or school personnel who is familiar, in some cases very familiar, with ADHD in their classrooms; however, they are led by faulty ideas about the disorder and its impact in the classroom. These faulty ideas are often present in not only their discussion of ADHD, but also their interactions with diagnosed and undiagnosed (but suspected) students. These teachers and school personnel were placed into this category because they believe they know quite a bit about ADHD, but their treatment of those who have or are suspected of having ADHD does not always match their understandings of the disorder. In some instances, their understandings are also faulty and/or misguided. This category is difficult to differentiate when just examining responses to my interview questions and is easier to identify when also examining actions toward students (in the next chapter).

The answers that the misguided provided when asked what they think ADHD is had the most variety. Out of the 8 core responses to this question, noted at the beginning of this section, 7 were mentioned at least once by this category of teachers and school personnel (see Table 4.2 for more detail). The only response that did not come up in the



responses was a reference to ADHD being associated with the ability to be easily distracted.

Of the three individuals in this category, at least two specified the brain, difficulty focusing and the ADHD acronym and at least one stated movement, the environment, overstimulation and impulse control. First, we have Mrs. Nash, a 7<sup>th</sup> grade Core teacher, who described ADHD as, “ADHD, with the H? That’s for hyperactivity, right? That’s, uh, the impulse control, the constant movement, the overstimulation of everything around them, makes it hard to focus. Concentrate.” Next, is Mrs. Becker, a Resource Specialist, who believes:

I think ADHD has a lot to do with executive function.... I think about a student that has a hard time focusing. Of course, that's the, you know, the icon- if you will, for ADHD. A hard time focusing, a hard time organizing. A hard time planning. A hard time initiating. I think most of those are most of the things that... that first come to mind for me.

Lastly for this category is Mr. Poole, a 7<sup>th</sup> and 8<sup>th</sup> grade Science teacher, who is a little less sure about what ADHD actually is in comparison to the others:

Guess it's a diagnosis, you can't with a clinical diagnosis. So, it's, you know, it's real. I don't think it's imaginary. When I was these kids' age it was- they didn't have a clue what it was. They would just punish you. 'Cause they thought...you were being defiant or, you know...I think it's some kind of chemical thing going on in the brain.

Overall, for this category, it is evident that their beliefs and understandings about ADHD are broad and multifaceted. Their responses encompass almost all of the themes

identified in analyses and thus suggest how these individuals' beliefs are faulty in some instances.

Unlike the misguided's responses to what ADHD is, which had the most variety amongst the categories, their responses to what ADHD looks like in a classroom had the least amount of variety (see Table 4.3 for breakdown). When I asked the individuals in this category to tell me what they think ADHD looks like in the classroom they only mentioned two of the themes: movement and organization. For example, as Mrs. Nash, a 7<sup>th</sup> grade Core teacher, discusses both movement and organization:

They're typically my ones that are tapping their pencil, their pens, their feet.

They're often really disorganized; their papers look like they came out in a mangled maul out of their backpack. If you give them something one day, they probably won't be able to find it the next day. Those are pretty typical.

While movement is important, her statement emphasizes the issues diagnosed students have with organization. Likewise, Mrs. Becker, a 7<sup>th</sup> and 8<sup>th</sup> grade Resource Specialist, shares a similar sentiment to Mrs. Nash's about organization:

I can give you a visual<sup>i</sup> right there and I know you can't see it on the tape but that's a student's desk right there, that has ADHD, right there. Take a look in there. Do you see that? There are folders for Math, English, Social Stud[ies]. None of those things are in those folders. Everything is shoved in there...the majority of our ADD, ADHD students, that's what the desks look like. And that's pretty, I think almost like a metaphor for their, what's going on in their mind, what's going on in their mind.... Really unorganized, really unstructured. And even though there is a system there, in place, it's, it's still not, still not happening.

The metaphor she provides is a great example of what the teachers and school personnel think of typical classroom behavior for students diagnosed with ADHD.

What is common amongst this category, is the detail with which they respond, as well as the criticism that they use in their descriptions of ADHD. Unlike the other categories, the misguidededs regularly include bits of criticism (e.g., “mangled maul”) when discussing ADHD in general and in reference to students who are diagnosed. This inclusion of criticism and the detail with which they describe ADHD is consistent with these individual’s classification into the misguidededs category.

*Who are the “misguidededs”?* There are three teachers/resource specialists that fit into this category and all of them have been teaching and working with children for more than 25 years, which means they have a great deal of experience. One teaches Core, one is a Resource Specialist and the last is a Science teacher. Two are female and one is male, and all of them would be categorized as white (see Table 4.1 for descriptive characteristics for each category).

### ***The Familiars***

*What is a “familiar”?* A familiar individual is a teacher or school personnel who is currently, has previously been closely associated with, or has a long history with ADHD in a school setting. These teachers and school personnel were placed into this category because they are able to discuss ADHD and how to handle/deal with ADHD in the classroom without expressing unfamiliarity about the disorder. They also seem comfortable and have a sort of ease when discussing ADHD and/or their experiences with ADHD. For instance, Mrs. Wheeler, a 7<sup>th</sup> and 8<sup>th</sup> grade Technology teacher, is easily able to talk about her experiences and relies on these experiences to help inform her

responses to my questions, which is obvious based on the following statement: “So, I’m thinking of the kids that I’ve had.” This statement indicates that she is aware that some of her former students had ADHD (though less is known about if they had an actual diagnosis based on this statement) and that she is familiar with ADHD. This sentiment was common amongst the individuals in this category.

Besides one reference having to do with the brain, the responses of the teachers and school personnel that comprise the familiars category are all behavioral in nature. Interestingly, the one connection to the brain is actually used to justify diagnosed student’s observed behavior and still relates to behavioral explanations. As Mrs. Garza, a 7<sup>th</sup> grade Core teacher says:

To me ADHD is a, um, it's, it's, uh, brain, something to do with the brain that a student, um, goes- can't, um, stay still. He, um, has a difficulty focusing. Um, he needs redirection, um, he, his little brain goes fast and, uh, it, it, uh, it- it's a learning disorder pretty much.

Teachers and school personnel also refer to the ADHD acronym. Unlike the unfamiliar though, the familiars not only recited the acronym, but also provided a more detailed description of ADHD along with it. This is part of what separates the familiars from the other categories, in particular the unfamiliar. We see this use of the acronym in conjunction with the detail in the following response. Mrs. Sanchez, an English Language Development and Intervention teacher, not only states what ADHD is, but she is also the only individual to know that the characterization of ADHD has changed to include ADD, which is a testament to her placement in this category. She said:

Okay, so I know it's more on the hyperactive side. There was ADD and then the DSM possibly moved into more of ADHD. Yeah. Okay. And, so, I think of more of like hyperactivity, because we have the H part of it. I think of, like, the, like, having to be, like video games will, like, sub-, sub-, like subdue them or help them just like ... They can just do that for hours. That's what I think of. But I also think of someone who's like multitasking, does one thing and then they think of something, they move on.

The most typical response dealt with behavioral issues that are commonly associated with an ADHD diagnosis—difficulty focusing, movement, and being easily distracted. As Mrs. Wheeler, a 7<sup>th</sup> and 8<sup>th</sup> grade Technology teacher notes:

They need to get up a lot. They get distracted by neighbors; they don't finish their work often. And not every kid, I mean, every kid's different. Sometimes they'll be, certain kids who have ADHD who, maybe they don't need to get up, but they need to play with something. They're I would say just busy overall.

Mr. Davidson, a 7<sup>th</sup> grade Core teacher, provides a similar yet more concise description, “Um... students that, uh, have a very difficult time focusing...on a given task.” The individual's that fit into the familiars category regularly associate what ADHD is with stereotypically problematic classroom behavior.

Given the fact that the teachers and school personnel in this category express familiarity with ADHD, it is not surprising that they provided the answers with the most variety when asked to describe what ADHD looks like in the classroom. Since they, ideally, should have the most experience, besides possibly the experts, they should have encountered the most students, and have thus seen the largest array of symptomatic

behaviors<sup>8</sup>. They described it as students having trouble focusing, as lots of movement, as having organizational issues, as being distracted or not paying attention, and as not completing their work. The most common theme amongst their responses were references to movement. For instance, Mr. Meyer, an 8<sup>th</sup> grade Math teacher talks about movement in his response, “Uh, they just have trouble focusing. They might be a bit fidgety, they might, uh, need to stand and get energy out.”

Unique to this category is the discussion of incomplete work. This is the only category that talks about students with ADHD not finishing their assigned work. Mr. Thompson, a 7<sup>th</sup> grade Core teacher, says it best:

That they get out of their seat quite a bit. That they're not um, too careful necessarily checking things, making sure uh they've, they've got it all answered or they've got the you know, you know like might be two sides of a paper and they've only done one.

Considering once again their admitted familiarity with ADHD and that they are teachers, it is not unexpected that they make mention of classwork. What is interesting though, is that they are the only category to mention incomplete work (not once, but twice) as a product of ADHD in the classroom. It is possible that they really do have the most experience and understanding of the ADHD diagnoses, apart from the two expert categories.

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<sup>8</sup> Public perceptions of ADHD tend to only emphasize the hyperactive symptoms most commonly associated with an ADHD diagnosis (i.e., cannot sit still, always talking, does not pay attention, etc.). The more knowledge and experience an individual has with ADHD the more likely they are to understand the many different ways that ADHD can manifest. This is a qualifying characteristic for placement in the familiars category.

*Who are the “familiar”?* Seven teachers have been classified as fitting into this group (see Table 4.1 for descriptive characteristics for each category). Four of the teachers teach Core, one teaches Math, one teaches Technology, and the remaining teacher teaches English Language Development (ELD) and Intervention. All of these teachers have been teaching for more than 8 years, which means many of them are newer to the teaching profession relative to other groups. Three of them are male and four are female; five of the teachers would be categorized as white and two as Hispanic.

[TABLE 4.3 ABOUT HERE]

### ***The Experts***

*What is an “expert”?* An expert is a teacher or school personnel who poses a comprehensive understanding and knowledge of the ADHD diagnosis and how it might function in a classroom setting. There are two different types of experts: personal experts and professional experts.

A *personal expert* is a teacher or school personnel who has personal experience or expertise with ADHD. These individuals were placed into this category because they themselves have been diagnosed with ADHD. They are able to not only discuss their experiences with ADHD, but also how their experiences help them with their diagnosed students. For example, Mrs. Clark, an 8<sup>th</sup> grade Core teacher who has been teaching for over 40 years, told me:

I was diagnosed with ADHD when I was a kid. And so, I think, my perception was changed the first time a teacher slammed his books on my desk and told me to, you know.... They didn't know what ADHD was in those days. It was years

later that I was diagnosed. Slamming his book on my desk, and I was a sh- a very shy kid. I can remember sliding under my chair and sitting' under my desk crying.

Similar to the familiars category, the teachers and school personnel that compose the personal experts category defined ADHD using the same themes—the brain, difficulty focusing, a regurgitation/explanation of the ADHD acronym, movement, and being easily distracted. They also add to what the familiars describe of ADHD by discussing overstimulation as well.

But what separates the personal experts from the familiars, are their ability to pull from their own experiences as individuals diagnosed with ADHD themselves. In some cases, their personal experience is interwoven into their response to what ADHD is. Like Mr. Owen, an 8<sup>th</sup> grade Core teacher, does when I asked him to tell me what he thinks ADHD is:

Well, having been diagnosed with ADHD myself ...I was very- I had a very ... dubious opinion of it. At first. I mean, I still somewhat do. I- I believe it is a- a physiologic- a physiological issue. But I also, and this is my non-scientific, non, you know, version of it. It's a physiological issue, certainly having to do with brain chemistry. But I also ha- I- I also believe that external stimuli, or the lack of it, or improper imbalance versions of stimuli can aggravate it. And for a- if it's prolonged, I think it a- it can, you know, I think it can- it- it can adversely affect the- the- the physiological side of it. But this is just kind of my, you know, boiler pot, you know, thinking about. It's my own experience. I'm glad I was diagnosed after I got back from the Middle East.



He really places an emphasis on biology by discussing brain chemistry and overstimulation, but as you can see his response is rooted in his own diagnosis. More so, when he was diagnosed—as an adult after spending time overseas in the U.S. military. Striking, is the fact that the two male teachers in this category were both diagnosed later in life and both served in branches of the military.

The majority of the teachers in this category were thus able to provide concise answers to what they think ADHD is and in other facets of the interview chronicled their own experiences with their ADHD diagnoses as both children and adults.

It is easy to assume that the teachers and school personnel who fall into the personal experts category will be able to understand what ADHD looks like in the classroom, since they are diagnosed themselves. They may be able to use their own experiences to easily identify other students who have ADHD, even before they might be diagnosed. When asked to describe what ADHD looks like in the classroom, their answers included having trouble focusing, movement, and being distracted or not paying attention. All of their responses included each of these characteristics. This is illustrated best by Mrs. Clark, an 8<sup>th</sup> grade Core teacher, who discusses all three aspects:

You've got the kids that are constantly kicking their legs. You've got the kids that, if a student gets up to sharpen a pencil, they have to watch that happen. And if somebody else talks to them, they've got to watch that happen.... They truly can't focus because there's just too much going on.

The personal experts are also able to discuss what ADHD looks like for students at different ends of the spectrum, which is only common among the two expert categories.

For example, Mr. Wright a 7<sup>th</sup> and 8<sup>th</sup> grade Math teacher, discusses with ease the two sides of what ADHD can look like:

Sometimes you don't know at all. Sometimes they're staring at you and you're thinking they're calm and they're following you and they have no idea what you're saying. So, it's really, you can't predict in just a single setting. And it takes, takes time to know what that s- student's, what's going on. To recognize with that particular kid. So, some of them are up and all over and that's ... those are the easy ones to know. And then those are the ones with H, they['re] hyper, you know.

For this category, we see that there is an engagement with symptomatic behaviors and the acknowledgement of the different types of symptoms associated with the different types of ADHD a student might be diagnosed with.

*Who are the “personal experts”?* The personal experts include three teachers who openly admitted to being diagnosed with ADHD, and they all have been teaching and working with children for 5 to 41 years. Two of them teach Core and the remaining teacher teaches Math. Two are male and one female; and all of them would be considered white (refer to Table 4.1 for descriptive characteristics for each category).

*A professional expert* is a teacher or school personnel who has professional experience or expertise with ADHD. These individuals were placed into this category because they have received professional training for working with students with disabilities, specifically ADHD. They may work very closely with students diagnosed with ADHD in special education or resource classrooms. Mrs. Miller, a 20-year Resource and Special Education teacher, provides a great illustration of what it means to qualify as a professional expert. She did not intend to work within Special Education; however, she

grew fond of it and obtained the appropriate credentials to continue working with kids with developmental, physical and learning disorders:

And you know coming out of college and I was actually, I have a degree to be an Ag teacher. Not to be a special ed, I mean I do now for special ed but, I took it for one year until something else would open up. And I really enjoyed Polson. I really enjoyed the kids. I en- I enjoyed, I didn't realize how much I would enjoy junior high so, that's why I went back and got my special ed credentials. So, I could stay.

The teachers and school personnel that fit into this category have been working with students of various ages that have a physical and/or developmental disability for no less than 15 years. Together they have received lots of training and have quite a bit of experience working with disabled students in a school environment. When asked to tell me what ADHD is, they all at least described behavioral aspects of the disorder. The most common was movement followed by considering the trouble diagnosed students endure with respect to focusing in class. Here, Mrs. Martinez, a 30+ year Special Education teacher, tells me what she thinks ADHD is, "It's a combination of different behaviors. And where a student is having difficulty paying attention. And physical movement too."

Two other themes arise when asked what they think ADHD is: a regurgitation/explanation of the ADHD acronym and a discussion of issues with impulse control. Mrs. Mueller, an 8<sup>th</sup> grade resource specialist describes how there has been a modification to the definition, "But I, I mean they changed the definition too, now."

While, Mrs. Miller, also a resource specialist, discusses how all diagnosed children are

different, but that her most challenging diagnosed students are those with impulse control difficulties:

It depends. To me, I mean it depends on the child. I mean it could manifest in... It could manifest itself in you know, tons of different ways.... The kids that I tend to find the most challenging are the kids who have it, Impulse issues along with the ADHD. Those are the ones I find the most challenging.

Since they have received training—whether it was to receive their special education credential or supplementary trainings thereafter—they should (ideally) have the most knowledge, familiarity and experience with knowing what ADHD is and potentially strategies for working with diagnosed students. Yet, intriguingly, they answer very similarly to the other categories when asked to define what the ADHD disorder is; the implications of these similarities will be reviewed at the end of this chapter.

The answers that the teachers and school personnel in the professional experts category provide are similar to the personal experts category. The difference between the two expert categories is that the professional experts not only discuss trouble focusing, movement, and being distracted or not paying attention, but also include compulsivity and being fidgety. As mentioned earlier in the familiars section, the professional experts have had more experience and familiarity with ADHD diagnoses. This is also different than the personal experts experience and familiarity for three reasons: (1) their experience (as far as I am aware) is not personal, (2) they are trained to work with lots of disabilities, and (3) because of their occupation working with the disabled populations on campus, have most likely dealt with more students with ADHD. So, it is expected that they engage with more of the symptomatic behaviors associated with ADHD.

Mrs. Miller, a 7<sup>th</sup> and 8<sup>th</sup> grade Resource teacher provides a good illustration of experience with ADHD:

What it looks like in a classroom I guess is fidgeting, looking around, looking for something to keep um...You know their attention. The impulsivity thing is just kind of like rushing through and doing things you know not even thinking about it. Just wanting to be done. That's one that you have a lot of this year. He just wants to be done, just want to be done. And just typical ADD though, is a little bit different. That's more just, you have to really look for that one a lot more because those kids are, tend to be quiet and they're not rushing through, they're just kind of quietly passively looking around, and not doing what they're supposed to be doing.

She is also able to talk about the different presentations, which the personal experts are also able to do. However, the professional experts are also more likely to compare ADHD diagnosed students to non-diagnosed students. For instance, this is seen in Mrs. Martinez's, a Special Education teacher, response, "Oh my gosh, yes. Completely different than regular students. Difficulty paying attention 100 percent. I mean it's very difficult a pure person with that category is having a lot of difficulty just paying attention to what's going on." The professional experts are able to give a great deal of detail when discussing what ADHD looks like. This is something individual to this category and that the other categories have more difficulty doing.

*Who are the "professional experts"?* There are four teachers who have been professionally trained and thus fit perfectly as professional experts (see Table 4.1 for descriptive characteristics for each category). Their years of experience teaching and

working with children range from 15 years to more than 30 years. They all have taught some form of Special Education, with three of them currently teaching Special Education and one of them teaching Art and AVID. All of the professional experts are women, with three of them being categorized as white, and one as Hispanic.

### ***DISCUSSION***

You may be wondering how are these categories useful? In some cases, responses to what ADHD is and looks like in the classroom are similar across categories. In fact, some of the responses may even seem quite repetitive. This is important for that reason alone; because it allows us to see that for the most part teachers and school personnel really do not know what ADHD is. Instead, most teachers and school personnel appear to be slightly uncomfortable with ADHD and/or lack a deep understanding of the diagnosis.

Despite not knowing or understanding what ADHD is—a neurodevelopmental disorder commonly diagnosed in childhood—teachers and school personnel are all able to provide an answer to both of those questions. The issue starts with their responses to what ADHD is. Instead of being able to identify what ADHD is the responses that are provided are symptomatic in nature. They regularly describe behavior rather than acknowledging that there are disturbances with the development of the central nervous system, thus potentially minimizing the biological deficits that students diagnosed with ADHD deal with on a daily basis. To a majority of these teachers and school personnel, regardless of category, they see an ADHD diagnoses as related primarily to poor classroom behavior, which is apparent in their responses to both questions.

The intent of this chapter was to review the beliefs and cultural understandings that teachers and school personnel have when it comes to an ADHD diagnosis.

Unfortunately, what I have found is not surprising given the research on the stereotypes and perceptions of ADHD by teachers. Diagnosed students are described as fidgety and easily distracted, which are things that can require more work on the teacher or school personnel's part. These answers are stereotypical and elicit the negative perceptions that are so commonly associated with an ADHD diagnosis. And while extremely important for understanding what teachers and school personnel believe about ADHD, they are even more important for understanding how these negative perceptions might lead to negative treatment of those who are diagnosed. The next chapter will discuss the types of treatment that diagnosed students encounter broken down by teacher/school personnel category.

#### ENDNOTES

<sup>1</sup> This is the picture of the desk that Mrs. Becker used as a metaphoric visual representation for what ADHD is like for students who are diagnosed.



## **Chapter 5. How Do Teachers Treat Students With ADHD?**

The interactions that ADHD diagnosed students have with their teachers may be impacted by stereotype bias. This bias may present itself because of the perceptions that are associated with the label of ADHD, a non-normative group of students (Jussium, Eccles, and Madon 1996; Metzger and Hamilton 2020). Similar to how less privileged students and students of color are perceived as less capable and poor learners (Irizarry 2015a, 2015b), ADHD diagnosed students may encounter similar perceptions. These perceptions may pose negative repercussions for diagnosed students' academic experiences (Jussium, Eccles, and Madon 1996; Metzger and Hamilton 2020), and the experiences that they have in the classrooms with their teachers.

While the previous chapter explored the beliefs and understandings that school personnel express with regards to ADHD, this chapter will investigate how teachers and school personnel treat their ADHD diagnosed students. Rather than focusing on responses to particular questions from the interviews that were conducted, this chapter will rely on the ethnographic data that was conducted during the classroom observation portion of this project.

These observations were of 7<sup>th</sup> and 8<sup>th</sup> grade classrooms where at least one student (if not more) was diagnosed with ADHD. The data analyzed will refer to specific interactions between teachers and their students, teachers and other teachers, and even communications between teachers and myself. Before discussing the traits each teacher/school personnel category possess with respect to their actions toward their diagnosed students, I will present the types of behavior that were present in my classroom observations.



### ***Teacher and School Personnel Student Treatment Categories***

Over the course of 153 hours of classroom observations, I witnessed a variety of interactions in several different classrooms that produced 9 common patterns of behavior that teachers and school personnel displayed when interacting with their students: (1) harsh treatment, (2) accommodation, (3) redirection, (4) reprimands, (5) positive reinforcement, (6) use of directives, (7) use of reasoning, (8) teasing of students, and (9) dismissal of students. These patterns are categorized in three ways: negative treatment, positive treatment, and an either/or of both types of treatment.

For negative treatment, the types of behavior are communicating in harsh manners, reprimanding often, using directives, and teasing students. Positive treatment includes being accommodating, using positive reinforcement, and using reason with their students. Lastly for the either/or category of both negative and positive treatment, teachers and school personnel could either redirect in a positive or negative manner. These types of behavior were generally used amongst all students; however, ADHD diagnosed students were more likely to endure more negative treatment in the classroom. Below I will review what is meant by each of these patterns of behaviors, which were informed by the ethnographic data collected during classroom observations (see Table 3 for a description of the types of behavior).

[TABLE 5.1 ABOUT HERE]

#### ***Negative Treatment***

Negative treatment is defined as treatment that is less than desirable. It can be characterized by hostility, pessimistic views, cruel behavior, which all hinder the

opportunity for constructive feedback or in this case a welcoming classroom environment.

*Harsh Treatment.* A good portion of the interacting that occurred between teachers and their ADHD diagnosed students ended up being harsh. For the purposes of this project, harsh means that teachers were unpleasantly rough when speaking to their students. They also created a classroom climate for these students that was often hostile and difficult to survive in. A harsh classroom environment might include the other behaviors that are categorized into “Negative Treatment.” In fact, it often included lots of reprimanding, only using directives when engaging with students, dismissal of students, and a common use of taunts or teasing. This environment is not conducive for learning and is habitually uncomfortable for everyone, even the teacher.

*Reprimands.* Though all students were occasionally subjected to receiving reprimands, ADHD diagnosed students were reprimanded at a disproportionate rate. When referring to reprimands what is meant is that students sustained a severe reproof or rebuke by teachers and/or school personnel, who on school grounds are figures of authority to students. These reprimands often started out tolerant (though not pleasant) and got progressively punitive—characterized by condemnation, stern tones and disciplinary action—as they continued to increase in one class period. In many instances, all the reprimands given were unkind and not surprisingly, ADHD diagnosed students were more likely to receive these unpleasant reprimands.

*Directives.* Rather than having discussions, teachers and school personnel regularly use directives with their students. A directive is an authoritative order that serves to direct a student. This usually occurs when students, especially diagnosed

students, are given stern directions to complete a particular action or goal. In the classroom, teachers and school personnel commonly tell disruptive students to “get back to work,” and to “stop messing around.” Any comments back from the directed student is generally met with either more directives, reprimands, a dismissal of the student, or a combination of the three.

*Dismissal.* Oftentimes students who have inquiries or questions that are deemed foolish incur some form of dismissal by teachers and school personnel. Dismissal for this study, is recognized as the act of treating something as undeserving of genuine consideration. This could manifest in the classroom in a few ways; students might receive a response to the like of, “I’m done with you,” or they may instead be given a nonverbal response. A nonverbal response occurs when the authority figure either ignores a student or utters an annoyed/frustrated sound, even sometimes in conjunction with a snap of their fingers or negative body language, such as a talk to the hand gesture.

*Teasing.* Normally, we would expect teasing to arise amongst peers; however, teachers and school personnel do not refrain from participating in the teasing of their students. Teasing is the act of making fun of someone or something. Teachers and school personnel might make fun of their students for providing what they believe are wrong or ridiculous answers to questions, or even mispronunciations when speaking aloud to the class. Generally, it appeared as though the teasing that occurred between teachers/school personnel and students was meant to be “all in good fun.” Yet, this teasing may have serious psychological repercussions for the individual who is being made fun of. It also might lead students to withdraw or lose motivation in the classroom, potentially resulting in a decrease in academic performance, either minor or severe.

### *Positive Treatment*

Positive treatment is recognized as desirable treatment in the classroom. Features of positive treatment might consist of affirmations, friendly interactions, and optimistic views that allow for a more nurturing and accepting classroom experience.

*Accommodations.* Teachers and school personnel were observed doing their best to be understanding of their students and any struggles they might have been encountering. To do this, they could make special accommodations for their students. For their diagnosed students they might even make accommodations that are outside of those that are included in any IEP's or 504 plans. An example of a teacher being accommodating would be when they provide extra time to complete assignments or tests. Sometimes teachers might also have specific students run paperwork to the office to allow a student time to take a break from sitting in class, while still being productive. All of the teachers and school personnel I observed were accommodating to a certain degree; the degree to which they accommodated is part of what separates them into the different teacher and school personnel classifications.

*Positive Reinforcement.* Behavioral psychology has long studied the effects of varying forms of reinforcement on behavior (Please refer to Skinner's work for more detail on positive reinforcement). Positive reinforcement is the addition of a positive consequence following a behavior that increases the likelihood of the desired behavior occurring again in the future. It is a common tactic for teachers and school personnel when interacting with their students. Typically, in the classroom, positive reinforcement is used when students are praised for their work or even their behavior; for example, students might be informed that they provided a "great" answer on their assignment (can

occur verbally or be written on the assignment) or were applauded by the class for a great response at the teachers/school personnel's discretion. While I did observe positive reinforcement happening in many classrooms, there were definitely missed opportunities to utilize these types of tactics to encourage students, both diagnosed and non-diagnosed.

*Reasoning.* Not all of the language used between teachers and school personnel and their students were characterized by negative treatment (e.g., reprimands or teasing). Some participated in reasoning with their students. For the purposes of this study, I pull the understanding of what reasoning is from Lareau's (2002) discussion of social class; reasoning refers to the utilization of negotiations in discussions between teachers/school personnel and students. When reasoning takes place in the classroom, students are usually given the chance to engage in critical thinking, share their opinions, and their justifications for their stances. This open and free dialogue might even be extended to include students providing persuasive language to lessen homework or extend due dates. Instead of just being told what to do, a discussion between the students and the teachers and/or school personnel takes place.

### ***Either/Or Treatment***

This category is defined as treatment that can be either negative or positive. So, for example, it is the same type of behavior, but it can be enacted in either a pleasant or unpleasant manner.

*Redirection.* Admittedly, is it difficult to stay focused in a classroom setting all day long. Because of this teachers and school personnel regularly perform acts of redirection. The goal of redirection is to change the direction of something. In particular, in the classroom, it is used to help or encourage a student to focus on the exercise at hand.

Redirection can be a light tap on the shoulder to remind a student to focus, it might be enacted by roughly moving a student (e.g., moving their body to face the board/front of the classroom), calling their name when they're not paying attention, or a combination of words and physicality. The reason that redirection falls into this group is because depending on the tactic employed, the act of redirecting a student will either be more reasonable or more unwarranted. There also tends to be a shift in the treatment from pleasant to unpleasant as the number of redirects increase in a class period.

### ***Treatment of ADHD Diagnosed Students***

Building off of the previous chapter, this chapter aims to also expand our understandings of the perceptions that teachers and school personnel have developed with interest to their ADHD diagnosed students. While we know that teachers and school personnel often know very little about what ADHD actually is based on the data presented in the previous chapter, we still need to understand what their lack of knowledge means for the treatment of their diagnosed students. Here we are exploring how they treat their diagnosed students in general, and then will discuss how their understandings or lack of understanding about ADHD are put into practice in their interactions with students in the classroom.

Below you will find a discussion of the types of treatment that teachers utilize with their ADHD diagnosed students that comes directly from the ethnographic data collected for this project. For each category, this section will review how teachers and school personnel treat their ADHD diagnosed students. I was fortunate to be able to observe at least one teacher or school personnel for each category and thus the discussion will rely on these observations and interactions (also see Table 4.3).

[TABLE 5.2 ABOUT HERE]

Figure 1 then focused on how teachers in each of these categories treat non-diagnosed and diagnosed students<sup>9</sup>. The figure clearly illustrates that diagnosed and suspected diagnosed students are most frequently on the receiving end of negative treatment. They are also less likely to be treated in a positive manner by teachers and school personnel in comparison to non-diagnosed students.

[FIGURE 5.1 ABOUT HERE]

*The Skeptics:* There was only one teacher—Mrs. Hansen—that was observed as a part of this group. While observing her Advanced Art class it was difficult to ascertain which students were diagnosed with ADHD because as she revealed in her interview, she does not look at her student’s files and thus does not know herself who is actually diagnosed. This means that it was also never confirmed to me who was diagnosed as well. This is why Figure 1 does not have any values for diagnosed students; however, what Figure 1 does show is that skeptics are much more likely to employ positive interactions with their students, especially in comparison to negative treatment. In addition, due to the nature of the more freeing environment consistent with an art class, the behavior that other skeptics teaching other subjects might employ could look a little different. Nonetheless, I anticipate that the degree to which they engage with each of the behavior characteristics would be similar to what was observed in Mrs. Hansen’s classroom.

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<sup>9</sup> The diagnosed students’ categories are a combination of both those confirmed with an ADHD diagnosis and those who teachers and school personnel suspect have ADHD, but that I could not confirm their diagnosis. Since teachers and school personnel believe those suspected have ADHD their perceptions reflect those of their ADHD diagnosed students, and thus, are likely treated in a similar manner to those with a confirmed diagnosis.

Of all the teacher and school personnel categories, the skeptics display the most positive behaviors with their students. In this category, they received a rating of low for being harsh, redirection, dismissal, reprimands, and directives. A rating of moderate for teasing, using positive reinforcement and using reasoning. Not once during the approximately seven hours that were spent in this classroom did, I observe her raising her voice or being harsh with her students. She did not normally have to redirect or reprimand her students. She did not dismiss her students' thoughts or statements and never had to forcefully direct her students. Instead, she created a welcoming environment, where she actively engaged with her students, checking in with them to see if they had any questions or concerns and sought out their thoughts and opinions.

In fact, she often gave students breaks from their work at the end of class, and she would spend that time checking in with them, both academically and socially. It was during one of their breaks that I witnessed the following interaction where Mrs. Hansen does tease a student:

Mrs. Hansen is talking with her students about the detention room, not because she is giving anyone detention, but instead has something that she needed to be delivered to that room. She asks the class if anyone knows where the room is, to which a female student responds that she does and would take it for her. Mrs. Hansen jokingly asks, "how come you know where the detention room is?" A few students laugh and another female student admits to getting detention for talking, so Mrs. Hansen inquires about it by asking her a few more questions. Then she asks the class if they have anything fun planned for the weekend. A Black female student volunteers that she is moving. So, Mrs. Hansen asks if it's out of the



district and the student admits she's only kidding, but that she does have a dance performance. They talk about her dancing and then class ends, and the students hurry to their next class.

Even though we do see some negative behavior through the form of teasing, what we overwhelmingly see is the use of reasoning. There is an active discussion rather than rigid instructions or demands. We also see how accommodating she can be in the next observation:

Mrs. Hansen asks her students if they want to learn about charcoals and how to use them by having her talk about it or watching a video as an alternative. She allows the class to vote and they vote for the video.

She allows the students to not only express their opinions, but also the flexibility to decide what medias they want to learn through. Lastly, we see the use of positive reinforcement during this interaction:

Mrs. Hansen praises the class for not goofing around at the end of the period by saying to her students that goofing around, "hasn't happened in this class...I don't anticipate it will."

Here we see her recognize their good behavior and also her expectations for this particular class.

These examples suggest that the Sceptics create accepting and engaging classrooms. Although it is less clear exactly how they might interact with and treat their ADHD diagnosed students, it is likely that they will use the same sorts of behaviors displayed by Mrs. Hansen. These behaviors are more in line with the beliefs that the skeptics express with regard to ADHD and their concession that ADHD is being over-

and misdiagnosed. To this category, ADHD is not always a real thing, which indicates that the stigma often associated with the diagnosis is nonexistent. If it is only something that occurs as a byproduct of the restrictive classroom environment, like Mrs. Hansen describes in her interview, then those in this category might actively work to create more freeing classroom environments due to this recognition; environments that are thus more favorable and advantageous to all students, especially those diagnosed with ADHD who may have fewer negative perceptions to contend with.

*The Unfamiliar:* Students who are involved with teachers and school personnel who fit into the unfamiliar category experience more moderate treatment in the classroom. In fact, the individuals observed in this category received a moderate rating for all of the common behavior patterns identified at the beginning of this chapter—being harsh, being accommodating, using redirection, using reprimands, using positive reinforcement, using directives, using reasoning and being dismissive—except for teasing, which they did little of. The unfamiliar observed had moments where they exhibited both negative and positive treatment toward their ADHD diagnosed students at similar rates. For this category, there were three classrooms that were observed—a Physical Education (P.E.) class, an English Language Development (ELD)/Intervention class and a Core class.

The ELD/Intervention teacher's aide observed did less interacting solely on her own with the students. Instead, she provided limited student support and also talked with the teacher more regularly, making it difficult to determine how she treats diagnosed students. Thus, the ethnographic data for this category relies on the observations of Mrs. Bauer's P.E. class and primarily Mrs. Kramer's Core class. Intriguingly, Mrs. Kramer's

class was only observed because she happened to have a student in her class that was transferred in from another school and who I also was able to observe at the other school site (this was possible because the student's original teacher knew what class he was transferred into since she was friends with Mrs. Kramer and they had discussed him and how to handle him after he ended up in her class), allowing for a comparison between schools, and even among the unfamiliars and the misguidededs.

Unfamiliars reprimand and dismiss their students without having to raise their voices or resort to harsher treatment. Here is an example of how Mrs. Bauer interacts with one of her male students (suspected ADHD):

Mrs. Bauer asks Liam (white male), "Liam, what are you doing?" Liam responds by saying, "I have a hurt knee." She tells him, "I'm not gonna deal with you. You need to do the stretches, or you can go straight to in-house<sup>10</sup> [detention which takes place at school in a devoted classroom on campus and during school hours; students are removed from their instructional classes and relocated into the in-house room when they receive an in-house detention]." Liam begins to behave and participates in the stretches.

Mrs. Kramer exhibits very similar behavior while being slightly more accommodating to her diagnosed students than those other categories:

Mrs. Kramer plays an audiobook of "The Outsider's," which is what the class is reading. The students are supposed to be reading along in their books. Noah (white male) raises his hand while the book is playing. Mrs. Kramer comes over

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<sup>10</sup> While this is a threat, the way that Mrs. Bauer reprimands the student is in a less harsh tone and manner. Instead of raising her voice she calmly and sternly tells the student that they will go to in-house if their behavior does not change. This is different than how the misguidededs, for example, would handle the situation.

to see what he needs. He asks, “can you turn it up a little?” Mrs. Kramer responds, “yes, sure” and she turns it up.

Redirection for this category is used in a more positive or neutral manner. Mrs. Kramer regularly redirects in her classroom, especially Noah who is diagnosed with ADHD (he was also regularly redirected at the other school; however, it was done in a harsh manner):

Mrs. Kramer notices that Noah is off task, so she calmly redirects him by reminding him to get on task, “that’s not on topic.” In another similar instance of being off task, she lightly sets her arm on Noah to signal to him that he needs to focus, as well as to sit up.

She also frequently engages in positive reinforcement by habitually praising Noah, like after he provides a correct answer and explanation of the answer.

The classroom environments that unfamiliar create utilize more discussion-based formats. This environment proves to be beneficial for ADHD diagnosed students as they are allowed to ask questions with little penalization, share their thoughts, and do not have to fear punitive discipline, unlike that is seen amongst the misguided category. Figure 1 highlights the slightly reduced likelihood for ADHD diagnosed students of being treated in a negative manner. This may result due to their unfamiliarity with what ADHD is and the stereotypes surrounding the diagnosis that work to shape teachers and school personnel’s perceptions of their diagnosed students. Students may fare very well in the classrooms of the unfamiliar.

*The Misguided:* In the previous chapter it may not have been apparent why the misguided category was labeled this way. In fact, this category is extremely well-

informed when it comes to ADHD. What makes the misguided a category is their treatment of their diagnosed students, which is defined by very negative interactions. All of the teachers and school personnel (N=3) in this category were observed during ethnographic data collection, so there is a substantial amount of evidence that speaks to this negative treatment.

This category received a high rating for negative behaviors and a low rating for positive behaviors (see Table 5). We also see this pattern remain consistent in Figure 1: ADHD diagnosed students are more likely to be on the receiving end of negative treatment and less likely to receive positive treatment by their teachers and school personnel. The low rating for the positive behaviors does not indicate that the Misguided do not treat their diagnosed students in positive ways, instead in comparison they have overwhelmingly negative communications with them (and really all of their students, even non-diagnosed). The misguided often have interactions with their diagnosed students that are similar to those in Mrs. Nash's Core classes:

James, a white male, is a diagnosed student in Mrs. Nash's Advanced Core class and he is often off task. Mrs. Nash annoyedly tells him, "James, get your computer, sit down, zip it." He does grab his computer but does not start working on his Cornell notes and is instead talking with another student. A while later Mrs. Nash tells James to move to an empty row near her desk and she informs him that he will be working there for the rest of the year. He is now isolated in a row separated from his peers.

Mrs. Nash is harsh while reprimanding, directing and redirecting him.

In another instance with a different diagnosed student, Noah, a white male (previously referred to in the unfamiliar section with Mrs. Kramer), she is similarly harsh, while also being dismissive:

Noah has his hand raised, so Mrs. Nash says, “Noah, put your hand down, you’ve used up all your times,” but Noah kept his hand raised. Shortly after in a soft tone she says to him, “Noah, you’re done.” He responds, “but you forgot something.” She responds just by saying, “no” and she disregards what he says and moves on with the lesson.

Here she does not let him ask another question and she ends up getting frustrated with him, so she acts dismissive towards him.

This category is also the most likely to tease their students. We see this clearly in Mr. Poole’s Science class:

Mr. Poole is sending Alejandro, a Hispanic male, and Logan, a white male, to in-house. But Logan doesn’t know where to go, so Mr. Poole says to him, “don’t worry, Alejandro has a seat with his name on it there, so he can show you.” He is making fun of Alejandro for being a regular in in-house.

Another exclusive feature of this category is their unsolicited willingness to share student information with me. While I think they believe they are being helpful, it is misguided (hence the category name) and inappropriate. Mrs. Becker, a Resource Specialist, who works in Mrs. Martinez’s (a Professional Expert; observed and interviewed) Special Education classroom, provides a great example of this:

Mrs. Becker comes over to where I am sitting in the classroom to ask for my advice and perspective on a disruptive situation with Jamal, a Black male, who

was not listening and leaving class without permission (this situation is also referenced in the professional experts section of this chapter). Trying to remain neutral, I inform her that I would not really be able to comment without more observations and more background information of him—both school and home life. Unexpectedly, she starts to provide me with information, at one point suggesting a diagnosis of ADHD when she says, “I’m sure there’s some ADHD going on there.” I never specifically asked to know anything about Jamal, but she was willing to share her opinion about his ADHD, along with some troubling information about his home life.

Similarly, after spending approximately 3 months in her class I informed her that I was studying ADHD when trying to elicit diagnosed students for interviews, Mrs. Nash regularly identified to me students she believed had ADHD even without the presence of an actual diagnosis in their records:

Mrs. Nash classifies William, a Hispanic male, as having ADHD even though he did not have a diagnosis. She advises me about William’s suspected ADHD diagnosis by telling me he would be “One of yours.”

She did this with many of her disruptive students; mainly male and only one female.

While it might seem as though the misguided employ only negative treatment in their classrooms, they do utilize some positive treatment through accommodations and positive reinforcements. When it comes to accommodations, Mrs. Nash, for example, has employed the use of a balancing chair for some of her students that are diagnosed and suspected and will give students with ADHD extra time on assignments and will even work with guardians to get students to turn in their work:

Mrs. Nash tells me that Emma (diagnosed ADHD) finally did her book of the month project this week, 2 weeks after hers was due. She continues by telling me she had to send an email to her parents but doing that got her to bring her flipbook in and then her book of the month project.

She was willing to send emails and work with her student to get her assignments completed, but she also complained about this very thing in her interview. Mrs. Nash tells me, "I have one little girl who I worry that, they- the ADHD card, she's on a 504, that it might- it- at some point, we've got to put a limit on how much extra time, "extra time" means. Because to turn in a quarter's worth of work at the end of the quarter is not really what's intended when you give someone extra time."

All the teachers and school personnel in this category were willing to assist their students with their work, but under the conditions that they set, which is what we see in the example above. Accommodations come at a cost (i.e., sitting quietly, having extended yet limited time for assignments, etc.), and if the students do not meet those requirements then the accommodations are not provided.

Despite the few positive interactions, my classroom observations of the misguideds overwhelmingly provide accounts of their negative treatment of their diagnosed students. This negative treatment creates more challenging classroom environments for diagnosed students. These environments are very problematic and can have dire consequences for diagnosed students' futures.

*The Familiars:* It is possible that being familiar with ADHD may lead teachers and school personnel to display either more negative or positive treatment toward their diagnosed students. Based on the five teachers and school personnel observed in the



familiars category, they were less likely to participate in reprimanding and teasing their diagnosed students. They are somewhat likely to dismiss, be harsh with, accommodate, positively reinforce and direct these students and are even more likely to redirect and reason with them.

Mr. Thompson, a Core teacher, had several encounters with his diagnosed student, Eiji a Hispanic male, that I witnessed and that show how the familiars treat their diagnosed students. In the same class period Mr. Thompson praised, reasoned with and redirected this student. First, Mr. Thompson praised Eiji for his response to a question that was asked about the parts of speech by saying, “Perfect. Very good job.” Next, when Eiji inquires about whether or not he should keep old assignments, Mr. Thompson uses reasoning tactics with him by giving him valuable information, but still allowing him to decide for himself: “Do I need them?” Eiji asks, to which Mr. Thompson calmly responds by saying, “we do an end of the year review, so you can keep them all year. It’s up to you.”

Lastly, Mr. Thompson redirects Eiji, who was talking too much and having a difficult time quieting down by telling him to “stop” talking and get back to the assignment. In these examples, even though redirection occurs, it is done in a more positive manner rather than a harsh one. Often the teachers and school personnel in this category also were willing to work with their students to help them complete assignments or give them mor time on exams.

For example, in various conversations with Mrs. Garza, a Core teacher, she expressed her willingness to work with her students, especially her diagnosed students, to

help them succeed in her class. Not only does she discuss this with me, but I also watched it occur:

Mason, a white male, asks Mrs. Garza to wait for him, “Wait, Mrs. Garza will you wait for me?” She responds with, “Of course we will.” She then waited for him to get his chrome book and the class continued with the lesson.

This is just one example of how the familiars were willing to accommodate their diagnosed students. Overall, the familiars were fair, however, still willing to reprimand and direct their ADHD diagnosed students (see Figure 1 for reference). This suggests that being familiar with ADHD may be important for diagnosed student’s treatment in the class, as well as their success in school.

*The Experts:* Recall from the prior chapter that there are both personal and professional experts. During the interviews with the teachers and school personnel that make up the personal experts category, they all detailed their own school experiences as students with ADHD (some of the accounts are retrospective, as some were not diagnosed until later in life). They also often expanded on the various strategies they utilize with their own diagnosed students. For example, Mrs. Clark, an 8<sup>th</sup> grade Core teacher, revealed that one of her past diagnosed students, whom she acknowledges was extremely bright, had trouble sitting still and enjoyed spinning in a chair. To accommodate this student, she provided him with a stool that had a spinning seat that was placed at the back of the classroom, so he could spin during class without distracting the other students. This is not typical of the teachers and school personnel in the other categories, which suggests that their own personal familiarity with ADHD leads them to

not only be more accommodating, but also to be more creative with their accommodations.

However, their personal accounts alone do not account for all of the ways that they treat their diagnosed students. Thus, I had the opportunity to observe one of the teachers in this category to determine how the personal experts interact with their ADHD diagnosed students. The ethnographic data collected in a 7<sup>th</sup> grade Math class, along with the interview data, informed the behavior patterns for the personal experts. This category received a rating of low for being harsh, moderate for reprimanding, positive reinforcement, using directives and reasoning, teasing and being dismissive, as well as a high rating for being accommodating and redirecting. Overall, this category has a mix of negative and positive treatment toward their diagnosed students (please refer to Figure 1 for a graphical representation of student treatment).

This became apparent when observing Mr. Wright with his student David (Hispanic male), whom Mr. Wright identified as having ADHD. In Mr. Wright's interactions with David, we see how he treats him both positively and negatively. Over the course of one Math period, Mr. Wright had several interactions with David:

At 12:19 pm Mr. Wright says sternly, "Stop. Stop. David." David replies, "I just don't get it. So, Mr. Wright spend some extra time explaining it in more detail.

At 12:31 pm David was having trouble understanding the inequalities lesson. So, Mr. Wright said to him, "David bring it back to my desk," and he explains it to him.

At 12:40 pm David was telling Mr. Wright that he got it wrong, so Mr. Wright again tells him to bring it back and they will work through it together. He realizes

what he did wrong on his own and he tells Mr. Wright. So, Mr. Wright says jokingly, “Now I get to punch you. No, you punch yourself cause I got in trouble for hitting students.” So, David laughs silently and punches himself softly.

While he might reprimand, redirect or even tease David, he is also very willing to work with him to make sure that he understands the concepts. This sort of accommodation was less likely to occur within other categories.

Again, this indicates that being able to reflect on and relate to their personal experiences might allow for personal experts to be more understanding and eager to help their diagnosed students. ADHD diagnosed students encounter a unique classroom environment when they are placed into a classroom with a Personal Expert, which may have serious implications for how well they fare during and after being in these classrooms. Though out of the scope of this current project, future research should focus on these unique classroom environments to gain a better understanding of these implications.

Professional experts displayed somewhat different behaviors. Working with the disabled student population—physical and neurodevelopmental—requires special credentials and training. These credentials and trainings are what differentiate the teachers and school personnel in the professional experts category from the other categories. For this category, the majority of the ethnographic data comes from the observations conducted in a special education classroom, and to a much lesser extent in a general education Core classroom with a resource specialist.

Special education classrooms often have fewer students and more teachers, teacher’s aides and resource specialists; however, the students in special education are

frequently more demanding than students without disabilities. Despite the potential extra challenges that the professional experts might endure, they interact with their ADHD diagnosed students in a moderate fashion, with both negative and positive treatment.

When interacting with their diagnosed students' personal experts regularly use both reasoning and directives, which was highlighted in the following interactions between Mrs. Martinez, a special education teacher, and Jamal (Black male) who was displaying disruptive behaviors in her classroom:

Jamal was attempting to leave the classroom without asking. Mrs. Martinez asks him, "Hi, where are you going?" He responds, "It's really none of your business." Mrs. Martinez tries to get him to stay in the classroom, but he gets up from his seat to leave the room and she tells him, "It's your choice." He leaves the classroom, but promptly comes back to search for the basketball he left behind. Mrs. Martinez has it and will not give it back to him, though she tells him that he can have it back at lunch because he cannot be bouncing it around the school while class is in session. This frustrates him, so he hits the end of a table and aggressively pushes two chairs over as he angrily leaves the room again. Eventually, he comes back and keeps to himself at his desk for a while. He begins to make noise and that irritates a fellow student. Mrs. Martinez tells him, "You need to stop." He responds by shaking his head no while still making the noise, so Mrs. Martinez writes him a referral. He says he will not go and utters the word "Fuck" under his breath. She tells him he needs to go to the office, but he says, "NO!" She no longer presses the issue and instead starts working with other

students. Staff from the office do come to get Jamal, but this occurs almost at the end of the period and quite a while after Mrs. Martinez called the office for help. Although this interaction was contentious at points, Mrs. Martinez remained calm. Professional experts are able to remain composed, while also moderately participating in both positive and negative behaviors with their diagnosed students (see Figure 1 for reference). The fact that professional experts are great at remaining calm in trying times is likely due to the training and experience they have with working with students with disabilities. This environment may prove to be valuable for ADHD diagnosed student's success, who are described by the teachers in this study as commonly acting in disruptive manners.

## ***DISCUSSION***

This chapter illustrates that the different relationships that teachers and school personnel have to ADHD strongly shape how they treat diagnosed students.

Certain categories create classroom environments that may lead to better outcomes amongst diagnosed students. The skeptics, personal experts and professional experts, in particular, promote classroom environments that are more accommodating for diagnosed students and displayed more similar treatment for diagnosed and non-diagnosed students. These categories are able to engage, motivate, and reason with their diagnosed students in ways that those in other categories do not. The main reason why the experts are able to provide this is likely due to their repeated training (professional experts) that not only teaches them what ADHD is, but also often teaches them strategies to assist with these diagnosed students. For the personal experts, they have a unique understanding and set of skills (i.e., coping mechanisms) based on their own experiences

diagnosed with ADHD that allows them to really engage with and understand their diagnosed students, as well as let them be creative with strategies to try. They know what strategies worked for them, whether they have been suggested by a professional or developed on their own, and the ones that do not work and are able to utilize them in their own classrooms.

The skeptics are probably the most surprising of the categories to create the most conducive classrooms for diagnosed students. However, when considering what they believe and understand about ADHD this is not that surprising. Since skeptics do not believe that there are really very many true or real cases of ADHD, then there is no stigma to associate with ADHD—thus, eliminating negative perceptions of diagnosed students. Instead, they often see their diagnosed students as just students. In addition, given their belief that the problem is a rigid classroom environment, and not individual students, they create more welcoming classrooms for all their students, which is a benefit for all the students they encounter, especially those diagnosed with ADHD.

In contrast, misguided foster precarious environments that are less encouraging and characterized by negative treatment for diagnosed students. This is somewhat contradictory, given the misguided's knowledge and experience with ADHD and teaching in general. Yet, when observed they display the worst treatment and the most often for all their students, but in particular their diagnosed students. It is possible that their early experiences with ADHD diagnosed students were challenging, particularly without proper resources or assistance. As a consequence, misguided may have let the perceptions of those experiences define their current experiences and interactions. It is also possible that they are more inclined to a negative disposition, which might suggest

that teaching is not the most suitable role for them. Regardless, they often fail to encourage when they could and instead reprimand, dismiss, tease, or act harshly towards their ADHD diagnosed students. To ensure more equitable classrooms for diagnosed students we might rely on placing them with teachers and school personnel that have been identified as employing more positive treatment.

Overall, as seen in Figure 1, ADHD diagnosed students disproportionately received negative treatment in comparison to their non-diagnosed counterparts in the classroom. Diagnosed students are also less likely to be treated in positive ways in their classrooms by teachers and school personnel and may be more likely to be subjected to bias and stigma. We also see that, for the most part, all students are subjected to more negative treatment than positive treatment in the classroom. This suggests that all students, especially ADHD diagnosed students, are in less welcoming classroom environments, which might pose serious risks for students' academic achievement—current and future—and their well-being.

Chapters 4 and 5 have provided insight into teachers' beliefs about ADHD and how they treat diagnosed students in the classroom. Chapter 6 moves past the student and focuses on the impact that guardians and families have on perceptions of diagnosed students. Teachers and school personnel may have strong opinions and beliefs when it comes to how guardians handle their student's diagnosis. Their beliefs might influence the perceptions that they develop for their diagnosed students. Thus, the next chapter will seek to understand how guardians of ADHD diagnosed students are viewed by teachers and school personnel.



## **Chapter 6. Teachers and School Personnel’s Perceptions of Guardians with ADHD Diagnosed Students**

*“That’s Just Good Parenting, Right?” — Mrs. Nash*

Schools and teachers rely heavily on guardian involvement. Guardians are tasked with not only helping their students with things like homework at home, but also helping in the classroom. The expectations of guardians in the classroom have increased, with schools requiring guardians to volunteer in their student’s classroom and help with school activities, like plays, fieldtrips, and so much more. Actively participating in these different classroom activities is not something that all families can do (Lareau 1987, 2002; Perez Carreon, Drake and Barton 2005).

Guardian involvement can be even more involved for guardians who have children that are diagnosed with ADHD. Diagnoses are commonly discovered through a student’s symptom presentation in the classroom, with teachers regularly bringing the possibility of a diagnosis to a guardian’s attention. Obtaining a diagnosis, an ADHD diagnosis in particular, is often a joint effort between various school personnel—teachers, school psychologists, etc.—and the student’s guardian(s). After bringing the potential diagnosis to the guardian attention, teachers and school personnel may be requested to complete surveys that psychologists and doctors use to help determine if a disorder or disability is present.

If a diagnosis is present then guardian(s), the students medical care team, and school personnel work together to develop various plans, like an Individualized Education Plan (IEP), to assist while at school and while at home. These plans are re-

evaluated on at least a yearly basis and depending on the current circumstances they may change to meet whatever challenges or conquests the student has encountered. This suggests that guardian involvement in school is not only high for students diagnosed with ADHD, but also can continue throughout the students' primary educational journey.

The inclusion of guardians in this project is important because not all families are capable of providing the guardian involvement that schools and teachers believe is necessary, which could lead to varying perceptions of the student and their family unit. It may be difficult to separate the perceptions of the family from those of the students, especially for students who are diagnosed with developmental disabilities, such as ADHD a labeled and stigmatized diagnosis (Fox and Stinnett 1996; Metzger and Hamilton 2020; Walker et al. 2008). Teachers' perceptions of their diagnosed students could be filtered through how teachers assess guardians' handling of the diagnosis and its associated behaviors. Thus, we may not be able to understand how teachers perceive and treat ADHD students without thinking about the role of guardians.

For this qualitative chapter, the goal is to develop a better understanding of how teacher perceptions might impact their treatment of their diagnosed students and how these perceptions might be influenced by their perceptions of students' guardians/families. Thus, the focus is on how teachers believe that guardians should be dealing with their student's ADHD. To explore this, the chapter relies on data collected during the teacher/school personnel interviews, as well as from classroom observations. I will start off with a discussion of what teachers brought up about guardians while I was observing in classrooms. From there I will move on to review the teacher/school personnel interviews, where I will first focus on the specific question: "How do you think

guardians should handle/deal with ADHD?” After reviewing the guardian specific questions, I will turn to a discussion of what teachers brought up about guardians when they were not prompted to do so.

This chapter will not focus on the teacher categories because guardians were brought up throughout all the interviews. There were no clear differences between the categories when guardians were discussed. Thus, this chapter will focus on how teachers and school personnel answered various interview questions.

### ***Discussion about Guardians in the Classroom***

While observing many classrooms, it became obvious that teachers talk with students’ guardians. Conversations between guardians and teachers tend to occur because teachers frequently reach out to discuss the difficulties that their student may be having in class. Whether that difficulty is with classwork, behavior, or both is something that is decided by the teacher. Although not all teachers discussed guardians with me, the ones who did, did so without my prompting. Teachers were often fairly forthcoming with information about guardians and families, especially when they thought they were being helpful with respect to my project.

When guardians did come up in my classroom observations, it was usually as a way to discuss behavior. For example, a teacher would bring up reaching out to a student’s guardians because they did not turn in an assignment or because they are misbehaving. For example, Mrs. Nash, a 7<sup>th</sup> grade Core teacher, discusses how she has to reach out to a student’s guardians to remind them to have the student finish and turn in assignments regularly:

Mrs. Nash tells me that Emma (diagnosed ADHD) finally completed her book of the month project this week, 2 weeks after it was due. She also discusses how this is normal and that she frequently has to email Emma's guardians to get her to bring her assignments in. This strategy has proven successful, as after emailing her guardians, Emma did eventually bring in her flipbook on regional terrains and then her book of the month project.

In terms of behavior, teachers also have to call home if the student's behavior does not meet their standards. Mrs. Garza, an 8<sup>th</sup> grade Core teacher, admittedly has had to call guardians about student's classroom behavior. As field notes indicate:

Mrs. Garza informed me that she had to call Ignacio's guardians because he would not stop talking in class, which has been disruptive for the entire class.

In addition, teachers actively discuss behavior and schoolwork related issues with student's guardians, regardless of an ADHD diagnosis.

However, since teachers eventually became aware that I was studying ADHD in the classroom, many of them became more forthcoming with information for students that they either knew had a diagnosis or those they suspected of having a diagnosis. The information that they provided sometimes extended past the particular event and included more personal matters. They would tell me about things regarding students' guardians' marriages (or lack of marriage), about extended family, and even if they did not get along with the guardian.

As Mrs. Kramer, a 7<sup>th</sup> grade Core teacher, shared, she believes that one of her ADHD diagnosed students' families hates her:

Mrs. Kramer approached me unprompted to ask me if I was getting everything I needed. I let her know that I am and really appreciate being able to observe Noah, who is diagnosed with ADHD and was moved from Mrs. Nash's class at Polson, to Mrs. Kramer's class at Sutton. Mrs. Kramer then lets me know that her brother-in-law's stepmom is Noah's mom, and she hates Mrs. Kramer. The reason for this negative relationship is because Noah had earned an F in Mrs. Kramer's class and Noah's mother blamed Mrs. Kramer for the grade.

In another instance while observing classrooms, Mr. Poole, an 8<sup>th</sup> grade Science teacher, began discussing personal details of a few students lives without my asking:

Mr. Poole tells me that one of his students has had some very traumatic experiences in her short life: her stepfather is in jail and her father was murdered while she was in home in their apartment. He then proceeds to tell me about Oliver (suspected ADHD). Mr. Poole tells me that Oliver is popular and nicer than his older brother, who Mr. Poole had a few years earlier. He also tells me that Oliver is athletic just like his dad, who is the wrestling coach at Colvin High, a local high school.

In another example, after observing a classroom where Jamal, a Black male student (suspected, yet unconfirmed ADHD per teachers), displayed aggressive and disruptive behaviors, Mrs. Becker, a Resource Specialist who works in a Special Education classroom, came over to seek my advice on what I observed:

Mrs. Becker comes up to me to get my advice and perspective on the Jamal situation. I told her I would need more information on him and his home life/background to make such a determination [I was not asking for more

information, instead I was trying to end this conversation. The point of the classroom observations was to observe silently, though this was occasionally difficult to do when teachers asked me questions or solicited information without my requesting it. However, my strategy may have backfired]. She tells me that his guardians are split up, that he has had a bad homelife, and that he has “some ADHD going on.” I tried to remain as neutral as possible and provide positive feedback about her interactions with him (especially their positive reinforcement). These examples are just a few that display how teachers bring up and discuss guardians, their households, and in some cases even seek my “professional” advice without my prompting.

This section highlights the fact that teachers discuss and talk with guardian(s) a lot. Teachers seemed eager on many occasions to provide me with information on students’ guardians and their family lives. In many of these cases, it appeared to occur because they believed it would help explain why a certain behavior or incident occurred. More so, I believe that it also testifies to how hard teachers have to work, even outside of the classroom. So, by doing this they are displaying how they go above and beyond with their students and how students homelives impact what teachers see and deal within their classrooms.

It also suggests that the relationship that guardian(s) have with their student’s teachers matters. Perceptions of ADHD diagnosed students are likely filtered through teachers’ perceptions and opinions of the whole family, especially the guardian(s). This could lead to possible biases of ADHD diagnosed students, depending on how their families are perceived by the school and its employees.

### ***Contradictory Messages on What Guardians Should Be Doing***

When specifically asked, teachers and school personnel have very strong opinions on how guardians should be handling their children's ADHD. Insight into these opinions is essential for determining how perceptions may shape teacher's treatment and understanding of their ADHD diagnosed students. There were nine main answers that teachers and school personnel provided when they were asked how they think guardians should deal with ADHD. They suggested that guardians should: (1) try different strategies, (2) communicate with teachers and the school, (3) research ADHD, (4) talk to experts, (5) use medication—only when necessary or always (6) be consistent and set expectations, (7) check student's schoolwork and agenda, (8) trust teachers (seek their opinions), and (9) not be in denial.

Unlike the two previous chapters, there were no distinct differences between the various categories (Please see Appendix 6.1 to review answer count by category). As a result, this chapter will not separate the analyses by teacher category, but instead will focus on the actual answers that teachers and school personnel provided. Below I will discuss the answers that were given and provide examples of those answers.

*Try Different Strategies:* Teachers and school personnel believe that guardians should try various strategies. Some teachers suggested trying physical manipulatives, like squeeze balls or fidget spinners, physical activities, like running and playing outside, homeopathic remedies and even diet changes. Mrs. Martinez, a Special Education Teacher, suggested physical activities when I asked what she thought guardians should do:

What a difficult question. Because it's, it's difficult. I have seen in my own family, my sister has a child, had well, when he was a baby, well when he was smaller. Lot of exercise. Burn your energy Lots of swimming, lots of activities outside, outside activities.

Not only did teachers and school personnel suggest trying different strategies, but they also suggested that the strategies might need to change as students get older, mature, and develop into young adults. For example, Mr. Wright, a 7<sup>th</sup> and 8<sup>th</sup> grade Math teacher, attests to this:

There is no straight answer. A[nd] and sometimes it changes over time. So, I've seen my grandson, um, he's in my class this year. And, uh, oh gosh, he's so, so bad hyper when he was young. And she had him finally about third grade, finally got along the meds that helped him at his grades, his focus with so much better. And she's taking them off though a couple of years later. Um, and leaving them off and he's doing just fine. So, it's not a ... I- it's a dynamic situation.

Interviewees who responded by providing this answer expressed their want for guardians to try lots of different strategies to find the ones that work best for their student.

*Communicate with Teachers/School:* One of the more common answers that teachers and school personnel gave was that they wanted guardians to communicate with them and the school with respect to their child's diagnosis. They claimed that having diagnosis information is important for teachers and school personnel, as Mr. Gonzalez, a 7<sup>th</sup> grade Science teacher, attests, "Um, well, yes. If they're- if they have the information that they're son or daughter has been diagnosed, and that accurate information is being transferred to this district and to the site, that we're aware."



Awareness could be important for how teachers handle diagnosed students and what sorts of accommodations they might make, especially if the student has an IEP or 504 plan. Not only is awareness of a diagnosis important, but also awareness of what successful strategies guardians use at home. Mrs. Kramer, a 7<sup>th</sup> grade Core teacher, discusses her desire to know what successful strategies there are for her diagnosed students are, “Um, if they, if they could let me know what strategies work for them at home. Just to give me some ideas. Not to say that it works in the classroom, but it would give me something else to lean on. And say, ‘Okay, well we've tried these things. Now let's try this.’” Communication between guardians and teachers/school personnel allows them to “unite as a team” (Mrs. Garza) to help ADHD diagnosed students be successful in school.

*Research ADHD:* Independent research is something that a few teachers and school personnel think guardians should do once their child is diagnosed with ADHD. Those that specify this as a task they believe guardians should do when dealing with ADHD also did not specify where or what to research, like Mrs. Clark, an 8<sup>th</sup> grade Core teacher, says below, “Get to know what it is as much as possible. I mean, just totally research it and learn about their child.” Mrs. Clark suggests that along with researching what ADHD is and what it might entail to deal with it, guardians should also learn about their child. Since each child’s experience with ADHD might be different, learning about your child in the research phase is critical to figuring out how to best assist their child.

*Talk to Experts:* Some of the teachers and school personnel would like guardians to talk to an expert, like a doctor or psychiatrist, to gain more knowledge about ADHD. Ms. Jefferson, a teacher’s aide, suggests just this, “You can go and talk to a doctor,

psychiatrist, no one knows what you're going to go through until you go through it.”

However, as Mr. Meyer, an 8<sup>th</sup> grade Math teacher indicates, speaking to an expert is not always easy for guardians to do, “Two, they should probably get a check up with a doctor which is sometimes hard for some guardians.” Seeking assistance from an expert may allow guardians to have access to new strategies, as well as extra support and someone to talk to who has technical knowledge and understanding when it comes to an ADHD diagnosis. This support may better equip guardians to help their children.

*Medication:* When asked how guardians should deal with ADHD, teachers/school personnel had very strong opinions about medication as a tactic. All but one of the teachers and school personnel who brought up medication expressed that it should only be used when necessary. In general, many said that they do not like the idea of medicating students but feel that in some instances it can be very helpful for certain students. Which, Mrs. Wheeler, a 7<sup>th</sup> and 8<sup>th</sup> grade Technology teacher, highlights in her statement below, “So, I really don't like the idea of medication. Although, I think for certain kids it's, it's appropriate.” Mr. Silva, a school Counselor, expressed a similar sentiment and believed that meds should never be the first option, “Um... and not just, you know, go straight to medications, but also look into, uh, other alternatives that are available.”

A few interviewees have been on both sides of this situation: they have worked in a school setting with ADHD diagnosed students, and also have children of their own that are diagnosed. When it comes to their opinions of medication, for the most part, they believe that medication should only be used when necessary. Like Mrs. Norris, an 8<sup>th</sup> grade Art and AVID teacher, states:

That's a really hard one 'cause I know, for us, it was a really hard decision to put meds in my son. It was very hard and, because you always want them to be the best, they can be to just be a- a- a child. And what happened is it, if you give them too much, it just makes them, they're a zombie, but if you don't give them enough, they're still in the same boat of not doing their work or not handing it in. Just very hyper. So um, some parents have trouble with that. But I think when you figure out your child really needs that sometimes you've got to get over your pride to really help see this is the best for your child.

Mrs. Norris's encounter suggests that some guardians may have to get over their "pride" to see that medication might actually be the best solution, however, she does not suggest that medication is right for all students.

There was only one individual, Mrs. Becker, a Resource Specialist, who adamantly expressed, unlike the other teachers and school personnel, that medication should be used, "I think the guardians should use medication." This opinion is not one that any of the other teachers and school personnel shared when I asked them how guardians should handle ADHD. However, as seen in the next section, general opinions about medication are somewhat different than what was expressed here.

*Be Consistent and Set Expectations:* Several teachers and school personnel believe that guardians need to be consistent and set expectations for their diagnosed students. Mrs. Nash, a 7<sup>th</sup> grade Core—grade level and advanced—teacher, believes that consistency is the most important thing that guardians can be when it comes to ADHD, "The real key is consistency. Because if you're not doing what you say you're going to then they don't have any reason to follow through." Mrs. Olsen, a 7<sup>th</sup> grade Core teacher,

expressed that guardians need to teach their children what is expected instead of relying on ADHD as an excuse, “Uh, instead of, blaming the ADHD, teach the child what is expected.” When discussing consistency and expectations a few of the teachers and school personnel equated consistency and setting expectations with being a “guardian.” For example, Mrs. Nash jokingly told me when answering this question, “That's just good parenting, right? (laughs)” This is something that they believe guardians should be doing regardless of whether or not their child has been diagnosed with ADHD. This response indicates that teachers and school personnel have very strong opinions on not just what guardians should be doing, but also what good child rearing is.

*Check Schoolwork/Agenda:* ADHD diagnoses have become associated with difficulty not only in school, but also with completing homework and class assignments. Not surprisingly, a few teachers mentioned that they believe that guardians should check their diagnosed student’s work and agenda. For instance, Mrs. Miller, a Resource Specialist who has lots of professional experience with ADHD diagnosed students, discussed the need for guardians to check over their students work and to make sure they are filling out their agenda. She notes that guardians should be, “Checking their agendas. Making sure they do their homework. Making sure the student is on top of things. Not letting the student be the one that is supposed to be checking, I mean the parents need to get on to parent portal and be checking it every single night.”

This, though, is not only something that teachers think guardians with ADHD diagnosed students should do—they also think that this is something all guardians should do, regardless of diagnoses. Mrs. Burnett, a 7<sup>th</sup> and 8<sup>th</sup> grade clinician, attests to this, “Maybe make sure that they help with their homework, um, that they're completing their

homework assignments. I'd have to say those... That's with all students and parents I would think.” These examples indicate that teachers and school personnel think guardians need to ensure that their children, irrespective of an ADHD diagnosis, are completing their work. This responsibility should not be placed solely on the student or teacher, but instead should be a team effort, where guardians are actively involved.

*Trust Teachers:* Guardians entrust teachers to teach and help nurture their children. When it comes to ADHD diagnosed students in particular, teachers and school personnel, commented several times that they want guardians to trust them. Mr. Warner, a 7<sup>th</sup> grade Math teacher, expresses his want for guardians to trust and support the decisions he makes in his classroom, “Just support my decisions in the classroom. I try to be fair. I'm like every other human, I have good days and bad days.” While he acknowledges that he has “bad” days, he is clear that the decisions he makes in his classroom need to be trusted by the guardians.

Teachers and school personnel also believe that guardians should rely on them for opinions on if they should be seeking a diagnosis, as well as to help figure out ways strategies to deal with an ADHD diagnosis. Mr. Gonzalez, a 7<sup>th</sup> and 8<sup>th</sup> grade Science teacher, wants guardians to reach out to him and other teachers/school personnel to seek advice with their ADHD diagnosed students, “Ask, uh, opinions of teach- current teachers and past teachers of behavior. Look at any kind of referrals or incidents of- that may be out of the normal for your son or daughter.” Trust is an important part of the relationship between guardians and school personnel and it may be an even bigger part for guardians whose children have some sort of diagnosis, especially ADHD.

*Not Be in Denial:* Throughout the interviews, many teachers and school personnel expressed that they considered that some guardians to be in denial with respect to their children's ADHD. This response tended to come about when they were asked about medication use. One teacher in particular, Mrs. Bauer a 7<sup>th</sup> and 8<sup>th</sup> grade Physical Education teacher, expressed that guardians need to recognize that their child has ADHD first before they can start to do anything to help (if help is needed, as this may be a misconception about ADHD diagnosed individuals), "Well, I'm just looking, they need to see if it is, first."

Whether guardians choose to utilize medications, alternative strategies, or a combination of both, teachers felt that they had to acknowledge that their student may be facing an extra challenge—an ADHD diagnosis. Being in denial and not acknowledging that there potentially is an extra challenge may delay a student's access to various resources in and outside of the school environment that could help them be successful in the classroom and beyond.

Despite the level of familiarity that teachers and school personnel have with ADHD, they are easily able to provide their viewpoints on how ADHD should be handled by guardians. These beliefs about guardian responsibility, and how well guardians meet teachers and school personnel's expectations, may influence how school officials perceive diagnosed students. The next section will review how understandings of guardian performance are intricately woven into perceptions of ADHD diagnosed students.

### ***(Unprompted) Discussion of Guardians During Interviews***

Although there was only one specific question on my interview guide related to guardians, respondents regularly discussed guardians throughout their interviews. Overall, when guardians are brought up, whether it be a discussion of a singular guardian—mom or dad—or multiple guardians, teachers and school personnel do so in an unprompted manner. Similar to the classroom observations, teachers, and school personnel were eager to consider guardians at various points throughout their interview.

Interestingly, when guardians were discussed outside of being specifically asked about, they came up in discussion during a few particular questions. While this section will not examine the responses per teacher/school personnel categories, it will review the most common themes presented when teachers and school personnel discussed guardian(s) in unprompted questions (see Appendix 6.2 for a breakdown by category per question). Below the analysis will begin with the question that involved the most discussion of guardians.

### *ADHD Rates*

The rate of ADHD diagnoses has increased rather rapidly. In fact, 10.8% of children aged five to seventeen have been diagnosed with ADHD as of 2017, which is a 4.3% increase since 1999 when the rate was 6.5% (National Center for Health Statistics 2018). While there are many theories about why this rate has increased, to get teacher and school personnel's thoughts as to why there has been an upsurge, they were asked, "Why do you think that the number of ADHD diagnoses has increased so rapidly in recent years?"

Teachers and school personnel attributed the increase to a few different things: guardians have increased awareness about ADHD, guardians use it as a way to get their

student extra resources at school, guardians use it as an excuse for bad behavior and low expectations, and finally guardians make poor decisions when fetuses are in utero.

When it comes to awareness, Ms. Daniela, a 7<sup>th</sup> and 8<sup>th</sup> grade teacher's aide, discusses how outlets, like social media, may have expanded guardians' knowledge about ADHD:

Maybe it is that before it wasn't... a lot of parents didn't know, didn't know exactly what it was. So, once they started to do more research on it and, um, th- um, that's when, like, more parents, they started to read different articles or they and they saw their child have certain... the... some of the symptoms, so, so they... Yeah, the awareness, it, it started to grow more... -Yeah. With social media, that's how... I think that's also one other thing. It's that with social media I think it's helping the parents know, have more information about it and they're more aware of the symptoms. And if they see okay, my child has these symptoms or. Like, yeah, so that's helping a lot too.

Social media has potentially allowed guardians to have more exposure to what ADHD is, any associated symptoms, and possible treatments. This could be a positive since it can bring understanding to families about what their student may be going through, though it could also be negative as it may lead to misdiagnoses.

Many teachers, on the other hand, believe that the diagnosis increase has resulted because guardians either want an excuse for poor classroom behavior and/or to get their students extra resources in the classroom. Mrs. Kramer, a 7<sup>th</sup> grade Core teacher, discusses how increases may be occurring due to the want for extra resources:



And so, I think that parents ... because I've experienced this in other areas. I'm just kind of applying the same theory. I think that some parents try to enable their children, for lack of a better word. Um, by finding something to diagnose them with so that they can get extra time or more help or something. More resources in the school. For the student. Um, even though they may not be as severe as someone else who does not have that diagnosis, that label, and that support. So, I think we're seeing a lot of that, because there's a lot of information out there. Where, that tells parents, "Well, here's how to take them to the doctor and get this paperwork." I mean, it's the end of the year, and I've received one of, I've received one of those, um, ADHD forms to fill out for my doctor just this week.

Here the suggestion is that guardians are so eager to get their students any extra resources that they may even seek a diagnosis when it might not be appropriate.

This again points to the possibility of misdiagnosis, which was also obvious when Mrs. Olsen, a 7<sup>th</sup> grade Core teacher, discusses how guardians are not teaching students how to behave leading to poor classroom behavior and subsequently leading to an unnecessary diagnosis, "I feel that parents don't want to take the time to teach their child how to behave until the child has learned behaviors that are often mistaken as or labeled as ADHD. Where they could just be a normal child growing and developing." This quote suggests that the diagnosis rate is increasing for some of the wrong reasons and places that blame on guardians.

Placing the blame on guardians for an ADHD diagnosis also occurred when respondents suggested it was something that happens while the mother is pregnant. Mrs. Martinez, a Special Day Class teacher, points to how what is taken and done in

pregnancy may result in a diagnosis, “And then, then what the parents take when they are in vitro, or when they have, or when they are pregnant.” This was the only biological connection made to guardians with respect to diagnosis. It, along with the previous accounts, suggests that that teachers believe the diagnosis rates have increased because of guardians.

Yet, teachers and school personnel contribute regularly to this rate increase. They are not only heavily involved in the process of referring students for diagnosis, but also are often the ones who begin the referral process for a student. The referral process is a joint venture that includes psychologists, guardians, and school personnel—thus scapegoating guardians may be both unfair and an inaccurate representation of how diagnosis occurs.

It is entirely surprising that guardians would come up when teachers and school personnel are asked, “Have you ever referred a student to be seen by a professional because you believe they have ADHD? Do you know what happened?” Most teachers and school personnel discussed the process of referral and how guardians were involved in it, like Mr. Molina a 7<sup>th</sup> grade Science teacher:

Yeah, so there's like a meeting between myself, one of our resource teachers, and our principal and the parent. [I]f I remember correctly there was a series of like, questionnaires that we had to fill out. I forget the name of them, but it was like, scale of one to five things that you notice. [A]nd then after that I was kind of out of the picture. I'm not sure what happened with the diagnosis.

Other teachers and school personnel discussed how guardians do not want a diagnosis because of any associated stigma. Mrs. Nash, a 7<sup>th</sup> grade advanced and grade

level Core teacher, discusses how guardians might shy away from a diagnosis because of the stigma that it may bring with it:

Yeah um, there was uh, one boy. But he's just- I- I think he's ADD, not necessarily ADHD. And when I mentioned that to mom, she didn't seem real willing to listen to it. He's a low performing student but he's in my gate class. And I just get the feeling that he has some attention issues, but he's not hyper in any way. So, I think that maybe there's some stigma, that some parents don't want to. Or- well no, he can sit still just fine, he doesn't have it. Where there's really different ... different variations.

Not only do the guardians not want the stigma attachment, they also do not believe the student has it because it may not present itself in the stereotypical hyperactive manner according to Mrs. Nash. Regardless of the wants of the guardians, or in this case not wanting a diagnosis, we still see that Mrs. Nash passes judgement of the guardians for not doing what she believes is best—obtaining a diagnosis. While the student might not face any diagnosis stigma, they might still face stigma because of the teacher’s perception of a lack of appropriate action on behalf of their guardians.

While Mrs. Nash might think the diagnosis in this case might be helpful, Mr. Wright (ADHD diagnosed), a 7<sup>th</sup> grade advanced and 8<sup>th</sup> grade Math teacher, occasionally sees guardians requesting a referral to get their student extra resources while at school, “The only ones that bother me is if, if they're, if they're looking for an excuse for their kid... But there are some, they're are looking for, thinking, "Oh, I can get my kid on this." Like, okay you get 504.” This quote from Mr. Wright indicates that some

guardians might utilize the referral process to ensure their student gets a 504 plan or an IEP plan that provides students with accommodations and various services.

Lastly, one teacher, Mr. Owen (ADHD diagnosed), a 7<sup>th</sup> grade Core teacher, expressed concern with the validity of diagnoses when discussing the referral process:

You know, I've s- probably, I mean you've probably seen this too. The kid's dad, "Oh, kid's got ADHD." And you- and he fits all the- checks all the diagnostic data for having ADHD. Dude lives in a group home. So, is that like, environmental ADHD? Or is there- is he- is he legit got ADHD? Or if you put that kid in a- uh, and you can see now where I'm like, chipping away, does ADHD exist? Um ... yeah, so the- if you put that kid in a normal environment where he has proper food, sleep, social cues, modeling. Does- do the symptoms a- abate?

This highlights how unsure some teachers and school personnel are about referrals and their consequent diagnoses. It is possible that not all symptoms result due to a disability and are rather a result of numerous circumstances, like living environment, that make a referral problematic. These accounts show how important guardians are when it comes to the referral process, whether that referral be warranted or for the appropriate reasons, as well as the subsequent increase of diagnosis rates.

### *Medication*

The second most common reference to guardians occurred when teachers and school personnel were questioned about medication use, or when answering the following questions: "Do you think that medication helps students when they are at school?" and "Do you know of any side effects that are associated with the use of medication?"

Generally, when guardians were discussed it had to do with their unwillingness to medicate their students. As Mr. Silva, a middle school counselor, explained:

The difficulty we find is we have a lot of parents, especially around here that are very close minded to it. And they don't give the kids a chance to experience it. Because kids don't want to get in trouble all the time. And- and if they are overly hyper or have the deficit, when they take a medication and it's successful, they're happy. Because they're not in trouble. And I've seen some great progress from kids. But I've also encountered a lot of parents that say, "No" to meds. "I've read about its and... definitely no." And it's really too bad that they haven't at least explored that. You know... I've seen a lot of successes. I've seen a lot of people try it short-term and they haven't... given it a fair chance for the doctor to find the right dosage.

Teachers report that guardians are often hesitant to even consider medication, and if they do consider it, they expect immediate results rather than waiting for the medication to stabilize in their student's system. Some respondents also believe that guardians should give medication a try, which contradicted what many teachers and school personnel discussed when asked what they believe guardians should do when handling ADHD—since many expressed that it should only be used when necessary.

Another teacher, Mrs. Olsen, a 7<sup>th</sup> grade Core teacher, expresses the difficulty in assessing the success of medication because, despite having medication for their student, some guardians do not actually give it, “I don't know because, I, I don't know who is taking it and if they're not. Some parents say that they have it, but they don't always give it to them, or they usually say they are going to be on it, or they just started it.”

Medication is always a more difficult topic to discuss, especially with guardians. But teachers and school personnel often considered how guardians are so resistant to medication, even if it could help their student in school.

Some of guardians/guardian's hesitation to the use of medication may result due to the side effects that they believe their students might encounter once on medication. In more recent years, guardians/guardians have been less likely to utilize medication, as the benefits seem to be outweighed by the adverse effects. Mrs. Mueller, a Special Education Teacher, attests to this, "Yeah the loss of weight, the no appetite, the not being able to sleep. All of, yeah, all of those things.... And so, I mean, I think a lot more of our parents now are preferring not to [medicate]... Because of all, because of all the side effects. You get the little skinny kids and everything."

However, the teachers and school personnel that discuss the side effects that guardians might fear, also discuss how guardians do not give the medications enough time to work and that there are lots of options to try. Similar to what Mr. Silva discusses above, Mrs. Lambert, a 7<sup>th</sup> grade Core teacher, believes guardians/guardians need to give medication a longer trial run and also be willing to try different medications:

Well, I guess the side effects would be when it's obvious they haven't been takin' it [medication]. Especially when it's on and off.... And I know there's so many different ones now. And that was something else I learned too over the years; is I didn't realize there were so many different ones. And kids, like parents say, "Oh that didn't work, and I don't wanna, I don't wanna do that." Well, they, they're not aware that, just like any of us, we, there's different ones that work better for different patients.

This suggests that teachers and school personnel think that guardians/guardians should at least be willing to try different medications and for longer periods of time. While this does not necessarily mean that medication will work for all students or that the side effects will go away with time, one teacher, Mrs. Bauer, a 7<sup>th</sup> grade Physical Education teacher, acknowledges that side effects might be curbed by consistent medication use, “I only had like, he was the only one [student] that I really was aware about, with the medication, and it was a big thing. Parents weren't keeping up on him with his medication, and it was just a mess.” So even when some guardians utilize medications as a treatment for ADHD, they might not be following consistent usage procedures, which could very well attribute to negative side effects.

Medication is a common tactic that families can use to help with their students ADHD diagnosis. Teachers and school personnel express in the previous section that medication should only be used when absolutely necessary, yet this discussion of medication indicates that guardians should try it and stick with it to give it a real chance to help their student. This is somewhat contradictory and may be occurring because while in general teachers and school personnel believe medication use is bad, the specifics of ADHD in the classroom may make it the most effective and easiest treatment. Medication does not normally require more of teachers, except for when it is used improperly, thus making it something that teachers believe will actually help their diagnosed students.

#### *Academic Achievement*

My previous research discovered that an ADHD diagnosis and its associated negative behavior presentations in the classroom—hyperactivity, inattentiveness, and a comorbidity of the two (American Psychiatric Association 2013)—has led to negative

perceptions of students' academic achievement by teachers (Metzger and Hamilton 2020). Thus, it was important to ask teachers and school personnel about how ADHD impacts students' academic achievement and school experience to try to understand what might be attributing to this association.

Guardians were regularly mentioned when discussing ADHD diagnosed students' academic accomplishments, or lack thereof. In particular, the following questions were answered with references to guardians: "Do you think ADHD impacts students' academic achievement?", "What do you think can be done to better prepare ADHD diagnosed students for academic success?", and "Do you think there might be a difference between a student who is diagnosed with ADHD in a regular grade level classroom versus a student with ADHD in an advanced classroom?"

In general, teachers, and school personnel articulate the belief that academic achievement is not impacted by an ADHD diagnosis—as long as the student has supportive and involved guardians. For instance, Mrs. Clark (Diagnosed ADHD), a 7<sup>th</sup> grade Core teacher, discussed how a lack of guardian (and teacher) support can have a negative impact on their achievement because they will be sent to detention, etc., "If they don't have teachers and parents that are supportive, absolutely. Pro- usually negatively. They usually end up getting kicked out of class. And I've got a young man I'm working with right now and there are days he gets kicked out of class." Similarly, Mrs., May, a 7<sup>th</sup> grade Core teacher, also accounts how important teamwork by the guardian and teacher is for academic achievement:

And again, I think it, it could be a positive thing that I've seen kids be successful.

As long as it's, as long as um, parent, teacher, everyone is, is working together as



a team and they understand, 'Hey, you know what, they need a little extra time to finish this. Great! You get one more day.' You know, cause it took 'em longer. It takes them longer, and they can't focus. And they could be successful cause they know that mom and teacher is on their side.

Guardians, however, might not always be aware of all the work that their student is responsible for, and this could negatively impact academic achievement. Not all students keep their guardians in the loop when it comes to their work, like Mrs. Mueller, a Special Education teacher, discusses, "What, what they're telling their parents can be something different too...And, and like when they're supposed to write everything down in their agenda, and then they don't and say they did. And then they go home and say they didn't have homework." If the student does not keep track of their homework, their guardians might not know as well. Failure to turn in assignments or turning them in late can definitely impact a student's academic achievement and this is something that may occur more often for students diagnosed with ADHD.

According to teachers and school personnel, involvement and assistance by guardians, through teamwork—between the school and home—and open communication are essential for students' academic success. Mrs. Burnett, a 7<sup>th</sup> grade and 8<sup>th</sup> grade clinician, advocates for open communication for student success, "Mm, I don't know. I guess maybe if they have, uh, maybe just an open communication with their teacher and parents."

Mrs. Garza, an 8<sup>th</sup> grade Core teacher, expands on the idea of open communication and teamwork to include guardians as advocates,

I have had parents where they bring me, um, where they give me research and they bring me folders and I say, 'I needed that, but let me show you what I found. Let me show you what I've read about this.'...But we, but we share together, and we read together, and we highlight together and we're both learning. That is so amazing. I've had several parents that are like that because they're advocates for- advocate... They advocate for their child. And, and it just makes me feel very proud of the parents that I have had because they truly care about their children's education.

Likewise, Mrs. Miller, a Resource Specialist, discusses advocacy and involvement in terms of equipment (i.e., internet service and Chromebooks),

Just being able to take a Chromebook home and he only takes it like for like three days at a time, and he'll do it like once every two weeks or so. What a huge difference. But it took the parents doing something too, and the parents said hey, would this help? Yes, it would. If you get it, if you can get the internet, I will find a Chromebook to check out to him. You know? So, it's made a huge difference.

Along with advocacy and involvement, teachers and school personnel also discussed the want for guardians to teach their students strategies for success. Mrs. Martinez, a Special Education teacher, thinks that guardians should be prompt with teaching their students strategies, "Well, as soon as parents know about it, they need to start teaching them strategies." However, the statements above do more than just discuss guardians advocating and being involved. They suggest that teachers and school personnel may only be "proud" of guardians who are this involved.

One mark of academic success in school, is a student's enrollment in a G.A.T.E.—gifted and talented education—or advanced instruction class. Unlike grade level instruction, G.A.T.E. instruction promotes an enriching academic environment, where the students engage in complex thinking, collaboration, innovation, and creativity. Though less common, students diagnosed with ADHD can be found in G.A.T.E. classrooms. Guardians, once again, were brought up as an explanation for not only why some diagnosed students are in these classes, but also why they succeed in these classes.

Guardian involvement and engagement is the main reason why ADHD diagnosed students are in and succeed in accelerated classroom environments. Mrs. Becker, a Resource Specialist, attests to this, “What comes to my mind, and it's probably, only because of what I've seen. Is that even in this class, if you have an engaged parent that, that makes all the difference in the world.” Enrollment in advanced classes might already elicit more involvement from families to cope with the types of assignments and materials that are assigned. This involvement might become more expansive and intense for students with an ADHD diagnosis. However, as Mrs. Becker states guardian involvement is crucial for all students regardless of instruction level or diagnosis.

Similar to Mrs. Becker, Mrs. Nash, a 7<sup>th</sup> grade Core teacher, discusses how familial involvement is the biggest difference between ADHD diagnosed students in G.A.T.E. and grade level classrooms:

Probably the biggest difference is the level of involvement of parents. I will say that. For sure. The gate parents tend to be more on top of, more aware of, and more verbal about their needs for their child. And their rights to get the needs for the child met. Sometimes a little extreme, sometimes to the point where it's almost

I- I think becoming an- an issue. I have one little girl who I worry that, they- the ADHD card, she's on a 504, that it might- it- at some point, we've got to put a limit on how much extra time, "extra time" means. Because to turn in a quarter's worth of work at the end of the quarter is not really what's intended when you give someone extra time.... So, I worry- I worry about her going on to uh, higher grades.... [A]nd in the- in my regular [class] the lower performing kids, they don't have ... well, i- it's hard to say, I don't know. It's not that their parents aren't as involved, but the parents are busy... I don't know how to say it. They're expectations are a little lower. Or maybe they aren't putting as much pressure to get as good a grade. I don't feel that push from some of those kids. I'm thinking of a couple of my kids. They're probably not diagnosed, but I definitely think they're on, somewhere in that range of ADHD. And they're not performing as well as I think they should. But I don't feel the push from the parents to do anything about it.

Here we see how Mrs. Nash perceives G.A.T.E. guardians as more capable and aware, which is advantageous for diagnosed students in particular. She views guardians with grade level students (some suspected though not diagnosed) as less involved in their students schooling and having lower expectations for their students. It is possible that the lower involvement and expectations by guardians may prove to be detrimental to their academic achievement and success. She also discusses how in some cases the accommodations that students receive as a result of a diagnosis are not well defined and thus can be taken advantage of. Taking advantage of resources, she fears may harm

diagnosed students who may not always be in situations where accommodations can be made.

This section indicates that academic achievement is not solely dependent on the student. As many teachers and school personnel stated, they believe that guardians bear part of the responsibility for the successful academic achievement of their students, regardless of instruction level. This is problematic since not all guardians are able to perform to the wants and needs of the school. Not all guardians have the resources necessary—time, money, physical space—to be involved or supportive like school’s demand, especially with respect to homework and assignments. These results are consistent with Lareau’s (2002) finding that teachers and school personnel, favor a concerted cultivation approach to child rearing —rearing that is generally associated with middle- and upper-class families—where guardians have the flexibility and resources needed to be actively involved in their students’ school lives.

## ***DISCUSSION***

Guardians play a key role in ADHD diagnosed students’ school experience. As seen in this chapter, teachers and school personnel repeatedly discuss how and what guardians should be doing when it comes to their ADHD diagnosed student. A few things are clear after reviewing guardians handling of ADHD with teachers and school personnel: (1) teachers and school personnel have very strong and sometimes contradictory ideas about how guardians should be approaching their student’s ADHD, and (2) guardians are judged on the how well they meet these ideals.

We see that guardians face a lot of judgement by teachers and school personnel with respect to how they raise their ADHD diagnosed student, which may contribute to

the bias that ADHD diagnosed students themselves encounter. The expectations that teachers and school personnel have cannot be met or expected of all families who have a student diagnosed with ADHD, as many of these expectations are heavily reliant on class resources. For example, as one teacher pointed out, the purchase of a Chromebook helped one of her diagnosed students; yet not all families can afford the Chromebook, let alone the monthly internet service costs. Another common example of how to help is through medication but obtaining medication in most cases requires healthcare—a privilege that not all families can achieve.

Not all expectations require financial expenses, like being involved in the classroom. However, being actively involved in the classroom requires the time and freedom of schedule that is normally associated with two-guardian households, where one guardian supports the home financially and the other supports the household, including assisting at school. Single guardian households are often characterized by a single working individual who is expected to take care of the household and support it financially, thus being involved at school is not always possible.

These examples and the expectations discussed throughout highlight the desire by teachers and school personnel to have middle-class (and upper middle-class) families for their diagnosed students. Any family that cannot meet these expectations may be perceived as less than capable of adequately meeting their diagnosed students' educational needs, regardless of the validity of that perception. These perceptions may be reflected in the perceptions that teachers and school personnel develop with respect to the diagnosed student. Thus, we see how class matters for teachers' perceptions of ADHD diagnosed students.

In addition, interviewees expressed many (and often contradictory) opinions about the types of treatments that are appropriate and inappropriate to use, like the use of medication. Though many teachers and school personnel believe that medication is helpful in the classroom, they also do not believe that guardians should be using it. This example highlights how guardians have to not only deal with their student and their diagnosis, but also that they have to deal with contradictory views on how the right way is to deal with it. This is a high (and often impossible) bar for most families to meet.

In conclusion, understanding how teachers and school personnel perceive the families of ADHD diagnosed students may help unravel the experiences that diagnosed students have in school. Teacher and school personnel's perceptions of the family unit may be the driving force behind how they understand ADHD diagnoses, how they treat certain ADHD diagnosed students, and the poor relationships they develop with their diagnosed students.

## **Chapter 7. What We Learned About How Teachers and School Personnel Understand and Interact with ADHD in the Classroom**

This dissertation explores the impacts that an ADHD diagnosis has on teachers' perceptions and students' school experiences (i.e., treatment in the classroom, student-teacher relationships, etc.). My previous work uncovered the negative stigma that diagnosed students face in terms of their academic achievement (Metzger and Hamilton 2020). In this project I wanted to delve deeper into why students diagnosed with ADHD are perceived more negatively by their teachers and other school personnel, especially when it comes to their academic performance.

In chapter 2, I turned first to nationally representative quantitative data. I conducted quantitative analysis of the types of relationships that diagnosed students and their teachers develop. Results indicate that students diagnosed with ADHD are more likely to develop worse relationships with their teachers in comparison to non-diagnosed students. These poorer student-teacher relationships amongst diagnosed students and their teachers are mediated by how teachers perceive their classroom behavior. Thus, a diagnosed student with more positively perceived classroom behavior is going to have a better relationship with their teacher. On the other hand, if a diagnosed student is perceived as having bad classroom behavior—something that is much more common among ADHD diagnosed students—then they are more likely to have a poor student-teacher relationship. This relationship is modified by a diagnosed students Individualized Education Plan (IEP) status—having or not having an IEP filed with their school. In an effort to try to make sense of these findings, this project expanded its focus to include a qualitative scope that explored what was actually happening in the classroom.



Given the findings of the quantitative piece, I wanted to understand what might be occurring that contributes to the negative perceptions of behavior and poorer student-teacher relationships that diagnosed students encounter. After spending approximately 153 hours in various middle school classrooms across Colvin and talking with 30 teachers and school personnel at those schools, I learned a lot about teachers and school personnel's understandings, perceptions, and treatment of students diagnosed with ADHD. This project lends itself to three major findings: (1) teachers and school personnel lack a real understanding of what ADHD is, (2) diagnosed (and suspected) students are treated more negatively in the classroom in comparison to non-diagnosed students, and (3) guardians and the family unit are subjected to harsh criticisms by teachers which may matter for how diagnosed students are perceived. Below you will find a more detailed discussion of each of these findings.

*Lack of Understanding about ADHD.*

Although ADHD has become more much prevalent in recent years, this project has shown that teachers and school personnel lack a real understanding of what ADHD actually is. Instead of discussing what ADHD is—that is, a neurodevelopmental disorder—a majority of the teachers and school personnel that I spoke with described the symptoms of ADHD. They expressed that ADHD was synonymous with movement (i.e., being fidgety), not paying attention in the classroom and on assignments, being disruptive and lacking focus.

Not only are these expressions descriptive of specific symptoms which manifest differently across students, these symptoms are also almost always described negatively. Because most teachers and school personnel fail to understand what ADHD is in medical

terms, they also lack an ability to adequately handle ADHD in the classroom. Not all the teachers and school personnel that participated in this project lacked an understanding of what ADHD is and how it functions. In fact, the professional experts are not only quite familiar with ADHD, they also have received training on developmental disorders, like ADHD. Professional experts, unlike many of the other categories (e.g., the unfamiliar, the skeptics, the misguided and the familiar), are able to compare and contrast ADHD diagnosed students to their non-diagnosed peers, as well as discuss the various presentations of ADHD in the classroom in detail. The other categories, minus the personal experts, struggle to identify that there are differences in presentations and instead tend to describe and associate ADHD with problematic symptoms and students. The knowledge and training that the expert categories possess may allow them to more objectively assess what ADHD is, who actually has it, and how to handle it in their classrooms, which may prove to be beneficial for diagnosed students. Thus, it is important for teachers and school personnel to receive training to better understand what ADHD is and how to handle it in their classrooms.

*ADHD Diagnosed Students Receive Harsher Treatment in the Classroom.*

Another finding from this dissertation is that ADHD diagnosed students are more likely to receive harsher treatment by their teachers and other school personnel. While this does not necessarily mean that only ADHD diagnosed (and suspected) students are treated negatively, they are treated negatively at disproportionate rates (please see Figure 1 in Chapter 5 for reference).

This negative treatment may be attributed to the more negative perceptions and the lack of understanding that most teachers and school personnel have when it comes to

ADHD. This becomes even more obvious when we see that the most accommodating classroom environments are those created by individuals who either do not see ADHD as a “real” disorder (e.g., the skeptics) or have personal and/or professional knowledge about what ADHD is and how to handle it in the classroom (e.g., the personal and professional experts). Not surprising is that the harsher treatment that ADHD diagnosed students face occurs in harsher classroom environments, which are often created by the misguided, in particular. It can be really problematic for teachers and school personnel to believe in ADHD, while also not understanding what the disorder really is. Failure to understand what ADHD is—a medical diagnosis—and what drives the disorder opens classrooms and school environments, and most importantly ADHD diagnosed students, to bias by teachers and school personnel. This bias can hinder not only their academic achievement and expectations, but also their motivation and well-being.

More work needs to explore how teachers and school personnel can create more conducive classroom environments for all students, but specifically those diagnosed with ADHD. Just because they behave differently, does not mean that ADHD diagnosed students are not capable in the classroom. Creating more accepting and freeing classroom environments will likely prove to be beneficial for students who encounter an extra hurdle in traditional classroom settings.

*Guardians Matter for Teacher and School Personnel’s Understandings of ADHD.*

Unique and an unexpected finding of this project was the discovery that guardians matter for teachers and school personnel’s understandings and perceptions of ADHD. It was not necessarily surprising that guardian’s matter, but it was surprising to what degree guardians impact their students experiences in the classroom.

Teachers and school personnel hold very strong opinions on what guardians should and should not be doing when it comes to their students ADHD. For example, guardians regularly come up when discussing the use of medication to treat ADHD. Guardians seem to be penalized by teachers and school personnel for both using and not using medication. Failure to comply with what teachers and school personnel believe to be the best treatment for diagnosed students may lead to poorer treatment and more negative perceptions of diagnosed students. This leads guardians to face a double-edged sword where they not only have to make the best decision for their child, but also the best decision for the school. If their decision does not match what teachers and school personnel believe to be the best course of action, then their student may be faced with more difficult school experiences.

### ***Limitations***

Although this dissertation is informed by a mixed methodological approach, it still has some methodological limitations. In terms of the quantitative analyses, the date of diagnosis was not available and thus could not be included in the models. This makes it difficult to know when a label may have been placed on the student, as well as knowing when, before or after a diagnosis was obtained, that a negative student-teacher relationship may have begun. I also cannot account for all possible variables that could be contributing to the poorer student-teacher relationships between diagnosed students and their teachers; however, the qualitative analyses do attempt to help make sense of the more negative relationships between diagnosed students and their teachers.

There are also a few limitations with respect to the qualitative data. First, a majority of the first round of classroom observations are from one classroom and of one

teacher. At the outset of this part of the project it was difficult to get other teachers/school personnel and schools on board to participate. It took some time in the first classroom and making connections with other teachers at that middle school to gain access to not only other classrooms on that campus, but also across campuses. The second round of qualitative data collection is much more inclusive of other schools and teachers/school personnel.

Second it was difficult to remain completely silent when observing classrooms because teachers and school personnel would actively seek out my opinion or “expertise” on students or behavior matters. I did my best to remain silent on all matters, even when my opinion was solicited. To accomplish this, I would make sure to remind the teacher or school personnel that I was there just to observe and was not a trained psychologist. In most cases, it seemed that they just wanted to be heard and reassured. So, I did a lot of listening and head nodding to indicate that I was following along; however, I never provided feedback or strategies to try because that was not my purpose.

Lastly, for my interviews I had to rely, to a certain extent, on a snowball sampling strategy (this strategy also helped when gaining access to other schools/classrooms to observe). While I solicited all the teachers and school personnel that I observed, I also received assistance in obtaining interview participants from those same teachers and school personnel. They would tell me who I should go talk with and even would email other teachers and school personnel my contact information to help set up interviews. At the same time, this strategy is common when it comes to qualitative research because it can be difficult to get participants without a referral.

Although several of my interviews were elicited using the snowball sampling strategy, many of them were not. I also sent out flyers to each principal and asked that they send it out to all teachers in the school. I also would solicit random teachers that I encountered on all the campuses that I was on by walking into their classrooms during school breaks or stopping them while walking around campus. Thus, not all of my interviews were referral-based, which helped to minimize biased respondents and their answers to the questions.

### *Contributions*

This dissertation works to inform both the fields of sociology and psychology, as well as the study of educational inequalities and developmental disabilities, through the exploration of the labeling theory. In general, I find that ADHD is a stigmatized disorder that leads to more negative interactions, perceptions, and treatment. Thus, the findings contribute heavily to research on teacher perceptions, familial involvement, and policy implementation on behalf of ADHD diagnosed students.

### *Importance of Teacher Perceptions*

Teachers and school personnel perceive students with ADHD as less capable and problematic. The findings of this project are particularly important for the study of developmental disabilities. The number of students with a developmental disability, like ADHD, is increasing. And yet, at same time, these students are subjected to more negative stigma due to teachers and school personnel's lack of knowledge with respect to what ADHD actually is.

In the case of ADHD, many guardians actively seek out a diagnosis, to ensure that their student has access to any and all resources. Yet, as we see in Chapter 6, diagnosed

students are often met with harsh judgement in the classroom. Instead of helping, in some cases a diagnosis may actually be harming students in academic spaces. This harm may extend beyond primary education and work to discourage future educational attainment and occupational aspirations. This is particularly true because teachers are often gatekeepers for future educational opportunities and may block these opportunities for diagnosed students with whom they have, on average, poorer relationships.

### *Familial Involvement*

Unique to this project is the exploration of perceptions of guardians and the family unit. While collecting the qualitative data, it became obvious that teachers and school personnel regularly discuss guardians, both when prompted and unprompted. It suggested that guardians matter for ADHD diagnosed students.

After analyzing the data, it was clear that teachers hold very judgmental beliefs about what guardians should be doing when it comes to ADHD. In particular, what seemed to matter most to teachers and school personnel was familial involvement. While we know that research has documented the importance of familial involvement for students, this project shed light on how much this matters for ADHD diagnosed students. We must encourage open communication between families and schools to ensure the best possible outcomes for all students, especially those diagnosed with ADHD.

### *Policy Implementation*

Teachers' perceptions of their students who come from marginalized categories can be discriminatory and biased, leading to lowered expectations for these students (Cherng forthcoming; Cherng and Han forthcoming; Hughes, Gleason and Zhang 2005; Irizarry 2015a; Irizarry 2015b; Jussium, Eccles, and Madon 1996; Metzger and Hamilton 2020).

To combat the stigma and stereotypes that surround developmental disabilities, like ADHD, and the families that deal with them, we must create policies that protect students and their families and to assist teachers in classrooms. Though many teachers suggested more training to help combat this, some research suggests that training around ADHD actually activates teachers' stereotypes associated with the disorder in a way that experiences working with children diagnosed with ADHD do not (Ohan et al. 2011).

Instead, policies should be implemented that increase teachers and school personnel's exposure and experience with developmental disabilities and best practices for positive treatment. Similar to what Lewis (2003) finds when exploring exposure to race in schools, increasing teachers and school personnel's exposure and knowledge of what ADHD is may help to decrease their bias towards the disorder, while subsequently improving interactions and experiences for ADHD diagnosed students. Familiarity allows individuals to not only create more positive understandings, but also the space to think and engage with the challenges that an ADHD diagnosis may be associated with more critically.

Another avenue could consist of creating and implementing policies that exclude schools, in particular teachers and individuals working in classrooms, from having access to diagnosis information on students. As the skeptics display, not knowing beforehand that a student has an ADHD diagnosis is beneficial to those diagnosed. If ADHD is not treated as a real thing, then there is nothing to attach stigma to. Excluding diagnosis information may allow for more types of teachers and school personnel to create more inclusive classroom environments.



Unfortunately, making diagnosis information inaccessible to teachers and school personnel also means that students will not receive any of the special accommodations that they often need. Instead, policies should focus on creating more conducive classrooms for those with ADHD and other disabilities that would lessen the reliance and need for accommodations and IEP's. Characteristics of these more conducive classroom environments include freedom of movement, promotion of discussion and critical thinking, and encouragement of expression of personal experiences and beliefs without the fear of judgement or punishment. In these environments, students are not confined to their desks and they are welcomed to share their perspectives and experiences. More so, they are encouraged to engage in discussion and in some cases even challenge their teacher's lessons, which is beneficial for all students not just those who are diagnosed with ADHD. Students are a part of the decisions and are heard in these classrooms. Additional scholarship is needed to understand how to create these classroom environments and to continue learning how to effectively reduce teachers' biases surrounding developmental disorders.

### ***Future Directions***

While this project revealed important information about the experiences, perceptions, and treatment of ADHD diagnosed students in middle school, there is still much to learn about the bias that surrounds ADHD diagnosis in educational spaces. Future research should work to focus on three main things: (1) older diagnosed students' school and life outcomes and experiences, (2) guardians' experiences, and (3) perceptions reaffirming and contradictory statuses for ADHD diagnosed students.

ADHD research tends to focus on young children and early school experiences. Yet, as the number of diagnoses increase, we also have a growing young adult and adult population of individuals diagnosed with ADHD that we know much less about. Moving forward research should be expanded for this understudied population. In particular, future research should focus on the school experiences and postsecondary outcomes for high schoolers diagnosed with ADHD. It is not uncommon for the ADHD-diagnosed to attend (though not always thrive in) high school and diagnosed students are much less likely to college (DuPaul et al. 2009; Green and Rabiner 2012). Understanding what transpires for diagnosed students in high school will help us continue to understand the potential negative perceptions that these students face, as well as allow us to begin to understand what might be contributing to the lowered likelihood of college attendance.

In addition, we must also explore the familial experience with a diagnosis of ADHD. A major finding of this dissertation has been the importance of guardians for teachers' understandings and perceptions of ADHD. What this project did not do was focus on guardians' beliefs and perceptions of ADHD. Guardians are tasked with dealing with their students' diagnosis not only at home, but also when it comes to their student's school experience. Although this dissertation discovers that teachers and school personnel have very strong judgements about what they believe guardians should be doing when it comes to their student's ADHD diagnosis, we know less about how guardians understand and react to their student's diagnosis. In order to get a clearer picture of what students and their families experience at school and at home researchers need to focus on student's home life by engaging with their guardians.

Lastly, more research is needed to explore the bias that ADHD diagnosed students face by focusing on the relationship between ADHD diagnosis and track placement—Gate, and normal grade-level achievement. Previous research has documented that labeling a child gifted does allow themselves to achieve at a gifted rate, in a sense they live up to how they are perceived and even believe themselves to be gifted as well. This may be happening with children diagnosed with ADHD too. We must gain a better understanding of how the diagnosis factors into not only students' academic achievement, but also their social, emotional, and cognitive development. And how these areas might differ depending on the track or pathway the student is placed within. There may be differences present that we have thus far not identified because we have failed to differentiate ADHD diagnosed students who have reaffirming or contradictory statuses. Reaffirming statuses are designated as students with ADHD who are placed in regular instruction pathways (i.e., two neutral identifiers) and contradictory statuses as students with ADHD who are placed in advanced or accelerated pathways (i.e., one neutral and one positive identifier). Studying reaffirming and contradictory statuses in relation to ADHD diagnoses and academic placement may allow us to see just how powerful the ADHD label and its associated bias truly is.

This dissertation has shed light on perceptions of ADHD impact teachers' understandings and treatment of their diagnosed students, as well as how these perceptions may contribute to the poor student-teacher relationships developed amongst teachers and their diagnosed students. However, there is still a lot of work left to be done to continue to understand how ADHD functions in educational settings and the impact it has on students' educational outcomes. Above are a few ways to continue to develop our

understanding of the longitudinal impact that an ADHD diagnosis has on those who end up with a diagnosis.

## References

- Algozzine, Bob. 1981. "Effects of label-appropriate and label-inappropriate behavior on interpersonal ratings." *The Exceptional Child*, 28(3):177-82.
- Alvidrez, Jennifer, and Rhona S. Weinstein. 1999. "Early Teacher Perceptions and Later Student Academic Achievement." *Journal of Educational Psychology* 91: 731-46.
- American Psychiatric Association (2013). "Diagnostic and statistical manual of mental disorders (DSM-5)." Washington, D.C.: American Psychiatric Association
- Anderson, Margaret L. and Howard F. Taylor. 2009. "Sociology: The Essentials." Belmont, CA: Thomson Wadsworth.
- August, Gerald J. and Barry D. Garfinkel. 1990. "Comorbidity of ADHD and Reading Disability Among Clinic-Referred Children." *Journal of Abnormal Child Psychology*, 18(1):29-45.
- Bates, Littisha A. and Jennifer E. Glick. 2013. "Does It Matter if Teachers and Schools Match the Student? Racial and Ethnic Disparities in Problem Behaviors." *Social Science Research*, 42(5):1180-90.
- Blacher, Jan, Erica Howell, Stacy Lauderdale-Littin, Florence D. DiGennaro, and Elizabeth A. Laugeson. 2014. "Autism spectrum disorder and the student teacher relationship: A comparison study with peers with intellectual disability and typical development." *Research in Autism Spectrum Disorders*, 8: 324-33.
- Brophy, Jere Edward. 1983. "Research on the Self-fulfilling Prophecy and Teacher Expectation." *Journal of Educational Psychology*, 75:631-61.
- Brophy, Jere Edward and Thomas L. Good. 1974. "Teacher-student Relationships." New York: Holt, Rinehart, & Winston.

- Buyse, E., K. Verschueren and S. Doumen. 2011. "Preschoolers' attachment to mother and risk for adjustment problems in kindergarten: can teachers make a difference?" *Social Development*, 20: 33-50.
- Canu, Will H. 2008. "Social Appraisal of Adult ADHD: Stigma and Influences of the Beholder's Big Five Personality Traits." *Journal of Attention Disorders* 11:700-710.
- Caplan, Barbara, Melanie Feldman, Abbey Eisenhower, and Jan Blacher. 2016. "Student-Teacher Relationships for Young Children with Autism Spectrum Disorder: Risk and Protective Factors." *Journal of Autism Developmental Disorders*, 46: 3653-66.
- Center for Disease Control and Prevention. 2019. "National Center on Birth Defects and Developmental Disabilities (NCBDDD)." Retrieved April 8, 2020: <https://www.cdc.gov/ncbddd/developmentaldisabilities/facts.html>.
- Center for Disease Control and Prevention. 2011. "Attention-Deficit/Hyperactivity Disorder (ADHD): Data & Statistics." Retrieved March 2, 2015 (<http://www.cdc.gov/ncbddd/adhd/data.html>).
- Cherng, Hua-Yu Sebastian. 2017. "If They Think I Can: Teacher Bias and Youth of Color Expectations and Achievement." *Social Science Research* 66: 170-86.
- Cherng, Hua-Yu Sebastian. Forthcoming. "Too Hard to Handle? Teacher Underestimation of the Academic Ability of Minority Students and Lowered Student Expectations."
- Cherng, Hua-Yu Sebastian and Wen-Jui Han. Forthcoming. "Teacher Perceptions of Migrant Children in China."

- Clark, Reginald M. 1983. "Family Life and School Achievement: Why Poor Black Children Succeed or Fail." *Chicago: University of Chicago Press*.
- Crosnoe, Robert, Monica Kirkpatrick Johnson and Glen H. Elder, Jr. 2004. "Intergenerational Bonding in School: The Behavioral and Contextual Correlates of Student-Teacher Relationships." *Sociology of Education*, 77: 60-81.
- Danielson, Melissa L., Bitsko, Rebecca H., Ghandour, Reem M., Holbrook, Joseph R., Kogan, Michael D., and Stephen J. Blumberg. 2018. "Prevalence of Parent-Reported ADHD Diagnosis and Associate Treatment Among U.S. Children and Adolescents, 2016." *Journal of Clinical Child & Adolescent Psychology* 47: 199-212.
- Davis, Heather A. 2003, "Conceptualizing the Role and Influence of Student-Teacher Relationships on Children's Social and Cognitive Development." *Educational Psychologist*, 38(4): 207-34.
- Davis, Kathryn S. and David R. Dupper. 2004. "Student-Teacher Relationships." *Journal of Human Behavior in the Social Environment*, 9: 179-93.
- Decker, Dawn M., Daria Paul Dona and Sandra L. Christenson. 2007. "Behaviorally at-risk African American students: The importance of student-teacher relationships for student outcomes." *Journal of School Psychology*, 45 :83-109.
- Delgado-Gaitan, Concha. 1991. "Involving Parents in the Schools: A Process of Empowerment." *American Journal of Education*, 1: 20-46.
- Downey, Douglas B. and Shana Pribesh. 2004. "When Race Matters: Teachers' Evaluations of Students' Classroom Behavior." *Sociology of Education*, 77(4):267-82.

- DuPaul, George J., Lisa L. Weyandt, Sean M O'Dell and Michael Varejao. 2009. "College Students With ADHD: Current Status and Future Directions." *Journal of Attention Disorders*, 13(3): 234-50.
- DuPaul, George J., Kara E. McGoey, Tanya L. Eckert, and John. VanBrakle. 2001. "Preschool children with Attention-Deficit/Hyperactivity Disorder: impairments in behavioural, social, and school functioning." *Journal of the American Academy of Child and Adolescent Psychiatry*, 40:508-522.
- Dusek, Jerome B., and Edward J. O'Connell. 1973. "Teacher Expectancy Effects on the Achievement Test Performance of Elementary School Children." *Journal of Educational Psychology*, 65:371-77.
- Dusek, Jerome B. 1985. "Teacher Expectancies." Hillsdale, NJ: Erlbaum.
- Eccles, Jacquelynne S., Jacobs, Janis E., and Rena D. Harold. 1990. "Gender Role Stereotypes, Expectancy Effects, and Parents' Socialization of Gender Differences." *Journal of Social Issues*, 46: 183-201.
- Eisenhower, Abbey S., Bruce L. Baker, and Jan Blacher. 2007. "Early Student-Teacher Relationships of Children With and Without Intellectual Disability: Contributions of Behavioral, Social, and Self-Regulatory Competence." *Journal of School Psychology*, 45(4): 363-83.
- Endo, Jean J. and Richard L. Harpel. 1982. "The Effect of Student-Faculty Interaction on Students' Educational Outcomes." *Research in Higher Education*, 16(2): 115-38.
- Erickson, Fred, and Gerald Mohatt. 1982. "Cultural Organization of Participation Structures in Two Classrooms of Indian Students." In *Doing the Ethnography of*



- Schooling: Educational Anthropology*, edited by G. Spindler. Prospect Heights, Illinois.
- Faraone, Stephen V. 2002. "Report from the third international meeting of the Attention-Deficit Hyperactivity Disorder Molecular Genetics Network." *American Journal of Medical Genetics*, 114(3):272-76.
- Faulkner, Valerie N., Stiff, Lee V., Marshall, Patricia L., Nietfeld, John, and Cathy L. Crossland. 2014. "Race and Teacher Evaluations as Predictors of Algebra Placement." *Journal of Research in Mathematics Education* 45: 288-311.
- Ferguson, Ronald F. 2007. "Toward Excellence with Equity." Cambridge, MA: Harvard Education Press.
- Ford, Thomas E., and Charles Stangor. 1992. "The role of diagnosticity in stereotype formation: Perceiving group means and variances." *Journal of Personality and Social Psychology*, 63:356-367.
- Foster, Glen G. and James E. Ysseldyke. 1976. "Expectancy and Halo Effects as a Result of Artificially Induced Teacher Bias." *Contemporary Educational Research*, 1:37-45.
- Foster, Glen G., James E. Ysseldyke, and James H. Reese. 1975. "I Wouldn't Have Seen It If I Hadn't Believed it." *Exceptional Children*, 41(7):469-73.
- Fox, Julie D., and Terry A. Stinnett. 1996. "The effects of labeling bias on prognostic outlook for children as a function of diagnostic label and profession." *Psychology in the School*, 33:143-152.

- Furner, Carrie, and Ellen Skinner. 2003. "Sense of Relatedness as a Factor in Children's Academic Engagement and Performance." *Journal of Educational Psychology*, 95(1): 148-62.
- Giddens, Anthony. 1991. "Introduction to Sociology." New York: W.W. Norton & Company.
- Goffman, Erving. 1963. *Stigma: Notes on the Management of Spoiled Identity*. New York: Simon & Schuster.
- Goh, Swee Chiew and Barry J. Fisher. 1998. "Teacher Interpersonal Behaviour, Classroom Environment and Student Outcomes in Primary Mathematics in Singapore." *Learning Environments Research*, 1: 199-229.
- Goldberg, Melissa C., Stewart H. Mostofsky, Laurie Cutting, E. Mark Mahone, Brad C. Astor, Martha B. Denckla, and Rebecca J. Landa. 2005. "Subtle Executive Impairment in Children with Autism and Children with ADHD." *Journal of Autism & Developmental Disorders*, 35(3):279-93.
- Goldman, Shelley, and Ray McDermott. 1986. "The Culture of Competition in American Schools." In *Education and Cultural Process: Anthropological Approaches*, 2<sup>nd</sup> edition, edited by G. Spindler. Prospect Heights, Illinois.
- Good, Catherine, Joshua Aronson, and Michael Inzlicht. 2003. "Improving adolescents' standardized test performance: An intervention to reduce the effects of stereotype threat." *Applied Developmental Psychology*, 23:645-662.
- Green, Andrea L., and David L. Rabiner. 2012. "What Do We Really Know about ADHD in College Students?" *Neurotherapeutics*, 9: 559-68.

- Gresham, Frank M. and Donald L. MacMillan. 1997. "Social Competence and Affective Characteristics of Students with Mild Disabilities." *Review of Educational Review*, 67(4):377-415.
- Hacker, Andrew. 1992. "Two nations: Black and white, separate, hostile, unequal." New York: Ballantine.
- Hamre, Bridget K., and Robert C. Pianta. 2001. "Early Teacher-child Relationships and the Trajectory of Children's School Outcomes through Eighth Grade." *Child Development*, 72: 625-38.
- Hamre, Bridget K. and Robert C. Pianta. 2006. "Student-Teacher Relationships." In G. G. Bear & K. M. Minke (Eds.), *Children's needs III: Development, prevention, and intervention* (pp. 59-71). Washington, DC, US: National Association of School Psychologists.
- Harris, Karen R., Barbara Danoff Friedlander, Bruce Saddler, Remedios Frizzelle and Steve Graham. 2005. "Self-Monitoring of Attention Versus Self-Monitoring of Academic Performance: Effects Among Students with ADHD in the General Education Classroom." *The Journal of Special Education*, 39(3):145-156.
- Henricsson, L. and A. Rydell. 2004. "Elementary school children with behavior problems: teacher-child relations and self-perception, A prospective study." *Merrill-Palmer Quarterly*, 50: 111-38.
- Holland, Kimberly and Valencia Higuera. 2015. "The History of ADHD: A Timeline." <http://www.healthline.com/health/adhd/history#overview1>

- Howes, C., L. C. Phillipsen and E. Peisner-Feinberg. 2000. "The consistency of perceived teacher-child relationships between preschool and kindergarten." *Journal of School Psychology*, 38: 113-32.
- Hoza, Betsy. 2007. "Peer Functioning in Children with ADHD." *Journal of Pediatric Psychology*, 32(6):655-63.
- Hughes, Jan and Oi-man Kwok. 2007. "Influence of Student-Teacher and Parent-Teacher Relationships on Lower Achieving Readers' Engagement and Achievement in the Primary Grades." *Journal of Educational Psychology*, 99(1): 39-51.
- Hughes, Jan N., Katie A. Gleason, and Duan Zhang. 2005. "Relationship influences on teachers' perceptions of academic competence in academically at-risk minority and majority first grade students." *Journal of School Psychology*, 43(4):303-20.
- Hughes, Jan N., T. A. Cavell and V. Wilson. 2001. "Further support for the developmental significance of the quality of the teacher-student relationship." *Journal of School Psychology*, 39: 289-301.
- Irizarry, Yasmiyn. 2015a. "Utilizing Multidimensional Measures of Race in Education Research: The Case of Teacher Perception." *Sociology of Race and Ethnicity*, 1-20.
- Irizarry, Yasmiyn. 2015b. "Selling students short: Racial differences in teachers' evaluations of high, average, and low performing students." *Social Science Research*, 52:522-38.
- Johnson, R. Burke and Anthony J. Onwuegbuzie. 2004. "Mixed Methods Research: A Research Paradigm Whose Time Has Come." *Educational Researcher*, 33(7):14-26.

- Jones, Ian. 1997. "Mixing Qualitative and Quantitative Methods in Sports Fan Research." *The Qualitative Report*, 3(4):1-7.
- Jerome, E. M., B. K. Hamre and Robert C. Pianta. 2009. "Teacher-child relationships from kindergarten to sixth grade: early childhood predictors of teacher-perceived conflict and closeness." *Social Development*, 18: 915-45.
- Johnson, Bruce. 2008. "Teacher-student relationships which promote resilience at school: a micro-level analysis of students' views." *British Journal of Guidance & Counseling*, 36(4): 385-98.
- Jussim, Lee, Jacquelynne Eccles, and Stephanie Madon. 1996. "Social Perception, Social Stereotypes, and Teacher Expectations: Accuracy and the Quest for the Powerful Self-fulfilling Prophecy." *Advances in Experimental Social Psychology*, 28:281-388.
- Kao, Grace. 1995. "Asian Americans as Model Minorities? A Look at Their Academic Performance." *American Journal of Education*, 103(2):121-59.
- Kent, Kristine M., William E. Pelham Jr., Brooke S. G. Molina, Margaret H. Sibley, Daniel A. Waschbusch, Jihnee Yu, Elizabeth M. Gnagy, Aparajita Biswas, Dara E. Babinski and Kathryn M. Karch. 2011. "The Academic Experience of Male High School Students with ADHD." *Journal of Abnormal Child Psychology*, 39: 451-62.
- Kesner, J. E. 2000. "Teacher characteristics and the quality of child-teacher relationships." *Journal of School Psychology*, 38: 133-49.

- Klem, Adena M. and James P. Connell. 2004. "Relationships Matter: Linking Teacher Support to Student Engagement and Achievement." *Journal of School Health*, 74(7): 262-73.
- Konishi, Chiaki, Shelley Hymel, Bruno D. Zumbo and Zhen Li. 2010. "Do School Bullying and Student-Teacher Relationships Matter for Academic Achievement? A Multilevel Analysis." *Canadian Journal of School Psychology*, 25(1): 19-39.
- Koonce, Daniel A., Michael K. Cruce, Jennifer O. Aldridge, Courtney A. Langford, Amy K. Sporer, and Terry A. Stinnett. 2004. "The ADHD label, analogue methodology, and participants' geographic location on judgments of social and attentional skills." *Psychology in the Schools*, 41:221-234.
- Ladd, G. W., S. H. Birch and E. S. Buhs. 1999. "Children's social and scholastic lives in kindergarten: related spheres of influence?" *Child Development*, 70: 1373-1400.
- Lahey, Benjamin B., William E. Pelham, Mark A. Stein, Jan Loney, Catherine Trapani, Kathleen Nugent, Heidi Kipp, Elisabeth Schmidt, Steve Lee, Melissa Cale, Erica Gold, Cynthia M. Hartung, Erik Willcut, and Barbara Baumann. 1998. "Validity of DSM-IV attention-deficit/hyperactivity disorder for younger children." *Journal of the American Academy of Child and Adolescent Psychiatry*, 37:695-702.
- Lareau, Annette. 2002. "Invisible Inequality: Social Class and Childrearing in Black Families and White Families." *American Sociological Review*, 67(5): 747-76.
- Lareau, Annette. 1989. "Home Advantage: Social and Parental Intervention in Elementary Education." London.
- Lareau, Annette. 1987. "Social Class Differences in Family-School Relationships: The Importance of Cultural Capital." *Sociology of Education*, 60(2): 73-85.

- Law, G. Urquhart, Sinclair, Scott, and Nicole Fraser. 2007. "Children's Attitudes and Behavioural Intentions Towards a Peer with Symptoms of ADHD: Does the Addition of a Diagnostic Label Make a Difference." *Journal of Child Health Care* 11: 98-111.
- Lee, Valerie and Julia Smith. 2001. "High School Restructuring and Student Achievement." New York: Teachers College Press.
- Lewis, Amanda. 2003. "Race in the Schoolyard: Negotiating the Color Line in Classrooms and Communities." New Jersey: Rutgers University Press.
- Link, Bruce G., Francis T. Cullen, Elmer Struening, Patrick E. Shrout, and Bruce P. Dohrenwend. 1989. "A Modified Labeling Theory Approach to Mental Disorders: An Empirical Assessment." *American Sociological Review*, 54(3):400-23.
- Lundberg, Carol A. and Laurie A. Schreiner. 2004. "Quality and Frequency of Faculty-Student Interaction as Predictors of Learning: An Analysis by Student Race/Ethnicity." *Journal of College Student Development*, 45(5): 549-65.
- Lynch, M. and D. Cicchetti. 1997. "Children's relationship with adults and peers: an examination of elementary and junior high." *Journal of School Psychology*, 35: 81-99.
- Macias, Jose. 1987. "The Hidden Curriculum of Papago Teachers: American Indian Strategies for Mitigating Cultural Discontinuity in Early Schooling." In *Interpretive Ethnography of Education at Home and Abroad*, edited by G. Spindler and L. Spindler. Hillsdale, New Jersey.
- Mannuzza, Salvatore, Rachel G. Klein, Abrah Bessler, Patricia Malloy, and Mary E. Hynes. 1997. "Educational and Occupational Outcome of Hyperactive Boys

- Grown Up.” *Journal of American Academic Child Adolescent Psychiatry*, 36(9):1222-1227.
- Martin, Jack K., Pescosolido, Bernice A. Olafsdottir, Sigrun, and Jane McLeod. 2007. “The Construction of Fear: Americans’ Preferences for Social Distance from Children and Adolescents with Mental Health Problems.” *Journal of Health and Social Behavior* 48: 50-67.
- Martinussen, Rhonda, Jill Hayden, Sheilah Hogg-Johnson, and Rosemary Tannock. 2005. A Meta-Analysis of Working Memory Impairments in Children with Attention-Deficit/Hyperactivity Disorder.” *Journal of the American Academy of Child & Adolescent Psychiatry*, 44(4):377-84.
- Matute-Bianchi, Maria Eugenia. 1986. “Ethnic Identities and Patterns of School Success and Failure among Mexican-Descent and Japanese-American Students in a California High School: An Ethnographic Analysis.” *American Journal of Education*, 94:233-55.
- McCusker, Kevin and Serdar Gunaydin. 2014. “Research using qualitative, quantitative or mixed methods and choice based on the research.” *Perfusion*, 30(7):537-42.
- McGee, Rob, Fiona Partridge, Sheila Williams, and Phil A. Silva. 1991. “A twelve-year follow-up of preschool hyperactive children.” *Journal of the American Academy of Child and Adolescent Psychiatry*, 30:224-232.
- McGrady, Patrick B. and John R. Reynolds. 2012. “Racial Mismatch in the Classroom: Beyond Black-white Differences.” *Sociology of Education*, 86:3-17.



- McGrath, Kevin F. and Penny van Bergen. 2015. "Who, when, why and to what end? Students at risk of negative student-teacher relationships and their outcomes." *Educational Research Review*, 14: 1-7.
- McKnown, Clark and Rhona S. Weinstein. 2008. "Teacher Expectations, Classroom Context, and the Achievement Gap." *Journal of School Psychology*, 46(3):253-61.
- Metzger and Hamilton. 2020. "The Stigma of ADHD: Teacher Ratings of Labeled Students." *Sociological Perspectives*, 1-22.
- Murray, C. and K. Zvoch. 2011. "Teacher-student relationships among behaviorally at-risk African American youth from low-income backgrounds: student perceptions, teacher perceptions, and socioemotional adjustment correlates." *Journal of Emotional and Behavioral Disorders*, 19: 41-54.
- Murray, C. and K. M. Murray. 2004. "Child level correlates of teacher-student relationships: an examination of demographic characteristics, academic orientations, and behavioral orientations." *Psychology in the Schools*, 41: 751-62.
- Murray, C. and M. T. Greenberg. 2001. "Relationships with teachers and bonds with school: social emotional adjustment correlates for children with and without disabilities." *Psychology in the Schools*, 38: 25-41.
- Nakanishi, Don T. 1988. "Asian/Pacific Americans and selective undergraduate admissions." *Journal of College Admissions*, 118:17-26.
- National Center for Health Statistics. 2018. "National Health Interview Survey, family core and sample child questionnaires." *Centers for Disease Control and Prevention*.

- National Center for Education Statistics. 2011. "Schools and Staffing Survey (SASS)."
- O'Connor, E. 2010. "Teacher-child relationships as dynamic systems." *Journal of School Psychology*, 48: 187-218.
- Ogbu, John. 1991. "Minority Coping Responses and School Experience." *Journal of Psychohistory*, 18:433-56.
- Ohan, Jeneva L., Troy A.W. Visser, Melanie C. Strain and Linda Allen. 2011. "Teachers' and education students' perception of and reactions to children with and without the diagnostic label 'ADHD.'" *Journal of School Psychology*, 49:81-105.
- Paino, Maria and Linda A. Renzulli. 2012. "Digital Dimension of Cultural Capital: The (In)Visible Advantages for Students Who Exhibit Computer Skills." *Sociology of Education*, 86(2):124-38.
- Perez Carreon, Gustavo, Corey Drake, and Angela Calabrese Barton. 2005. "The Importance of Presence: Immigrant Parents' School Engagement Experiences." *American Educational Research Journal*, 42(3): 465-98.
- Rassiger, Carolyn A. 2011. "Student-Teacher Relationships and Academic Success In at-risk Latino and Black Middle School Students." *ProQuest Dissertations Publishing*, 1-113.
- Ready, Douglas D. and David L. Wright. 2011. "Accuracy and Inaccuracy in Teachers' Perceptions of Young Children's Cognitive Abilities: The Role of Child Background and Classroom Context." *American Education Research Journal*, 48(2):335-60.

- Reyes, Maria R., Marc A. Brackett, Susan E. Rivers, Mark White and Peter Salovey. 2012. "Classroom Emotional Climate, Student Engagement, and Academic Achievement." *Journal of Educational Psychology*, 1-13.
- Rogers, Maria A., Judith Wiener, Imola Marton and Rosemary Tannock. 2009. "Parental involvement in children's learning: Comparing parents of children with and without Attention-Deficit/Hyperactivity Disorder (ADHD)." *Journal of School Psychology*, 47:167-185.
- Rosenfield, Sarah. 1997. "Labeling Mental Illness: The Effects of Received Services and Perceived Stigma on Life Satisfaction." *American Sociological Review*, 62(4):660-72.
- Rosenthal, Robert and Lenore Jacobson. 1968. "Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development." New York: Holt, Rinehard & Winston.
- Rudasil, K. M., T. G. Reio, N. Stipanovic and J. E. Taylor. 2010. "A longitudinal study of student-teacher relationship quality, difficult temperament, and risky behavior from childhood to early adolescence." *Journal of School Psychology*, 48: 389-412.
- Saft, E. W. and Robert C. Pianta. 2001. "Teachers' perceptions of their relationships with students: effects of child age, gender, and ethnicity of teachers and children." *School Psychology Quarterly*, 16: 125-41.
- Sax, Leonard, and Kathleen J. Kautz. 2003. "Who First Suggests the Diagnosis of Attention-Deficit/Hyperactivity Disorder?" *Annals of Family Medicine*, 1(3): 171-74.

- Schaller, Mark, and Anne Maass. 1989. "Illusory correlation and social categorization: toward an integration of motivational and cognitive factors in stereotype formation." *Journal of Personality and Social Psychology*, 56:709-721.
- Takagi, Dana Y. 1992. "The retreat from race: Asian-American admissions and racial politics." New Brunswick, NJ: Rutgers University Press.
- U.S. Census Bureau. 2019. "Current Population Survey, 2019 Annual Social and Economic Supplement." Retrieved March 26, 2020:  
<https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-hinc/hinc-01.html>.
- Tenenbaum, Harriet R. and Martin D. Ruck. 2007. "Are Teachers' Expectations Different for Racial Minority Than for European American Students? A Meta-Analysis." *Journal of Educational Psychology*, 2: 253-73.
- Thijs, Jochem and Fenella Fleischmann. 2015. "Student-teacher relationships and achievement goal orientations: Examining student perceptions in an ethnically diverse sample." *Learning and Individual Differences*, 42: 53-63.
- Thomas, Duane E., Stephanie I. Coard, Howard C. Stevenson, Keisha Bentley, and Pamela Zamel. 2009. "Racial and Emotional Factors Predicting Teachers' Perceptions of Classroom Behavioral Maladjustment for Urban African American Male Youth." *Psychology in the Schools*, 46(2): 184-96.
- Van den Bergh, Linda, Eddie Denessen, Lisette Hornstra, Marinus Voeten, and Rob W. Holland. 2010. "The Implicit Prejudiced Attitudes of Teachers: Relations to Teacher Expectations and the Ethnic Achievement Gap." *American Educational Research Journal*, 47:497-527.

- Vance, Teresa Ann and Lisa Weyandt. 2008. "Professor Perceptions of College Students with Attention Deficit Hyperactivity Disorder." *Journal of American College Health*, 57(3): 303-08.
- Walker, Janet S., Coleman, Daniel, Lee, Junghee, Squire, Peter N., and Barbara J. Friesen. 2008. "Children's Stigmatization of Childhood Depression and ADHD: Magnitude and Demographic Variation in a National Sample." *Journal of the American Academy of Child & Adolescent Psychiatry*, 47: 912-20.
- Webster, Beverley J. and Darrell L. Fisher. 2003. "School-level Environment and Student Outcomes in Mathematics." *Learning Environments Research*, 6: 309-26.
- Wilcox, Kathleen. 1982. "Differential Socialization in the Classroom: Implications for Equal Opportunity." In *Doing the Ethnography of Schooling: Educational Anthropology in Action*, edited by G. Spindler. Prospect Heights, Illinois.
- Wyrick, A. J. and K. M. Rudasil. 2009. "Parent involvement as a predictor of teacher-child relationship quality in third grade." *Early Education and Development*, 20: 845-64.
- Ysseldyke, James E., and Glen G. Foster. 1978. "Bias in teachers' observations of emotionally distributed and learning-disabled children." *Exceptional Children*, 44(8):613-15.
- Zimmermann, Calvin R. 2018. "The Penalty of Being a Young Black Girl: Kindergarten Teachers' Perceptions of Children's Problem Behaviors and Student-Teacher Conflict by the Intersection of Race and Gender." *Journal of Negro Education*, 87(2): 154-68.

## Tables and Figures

**Table 2.1. Summary Statistics, by ADHD Diagnosis: ECLS-K: 2011, 1<sup>st</sup>-3<sup>rd</sup> Grade Waves**

Variable	N	Mean	SD	Group Characteristics	
				ADHD	Non-ADHD
<i>Key Independent Variable</i>					
ADHD Diagnosis	34,390	.04	.20	1	0
<i>Dependent Variable</i>					
Student-Teacher Relationship	25,029	4.30	.61	3.91 <sup>***</sup>	4.34
<i>Key Explanatory Variable</i>					
Subject-Specific Test Score	41,725	80.43	16.37	75.33 <sup>***</sup>	81.69
<i>Student Characteristics</i>					
Female	54,405	.49	.50	.27 <sup>***</sup>	.50
<i>Race</i>					
White	54,390	.47	.50	.60 <sup>***</sup>	.50
Black	54,390	.13	.34	.15 <sup>***</sup>	.10
Hispanic	54,390	.25	.43	.17 <sup>***</sup>	.26
Asian	54,390	.09	.28	.02 <sup>***</sup>	.08
Other race	54,390	.02	.12	.01 <sup>†</sup>	.01
Two or more races	54,390	.05	.21	.05	.05
Age	41,866	96.64	10.61	98.74 <sup>***</sup>	96.51
<i>Parent Characteristics</i>					
<i>Education</i>					
Less than HS	36,987	.09	.29	.07 <sup>**</sup>	.09
HS Diploma/Equivalent	36,987	.20	.40	.22 <sup>**</sup>	.19
Some College/Voc. Prog	36,987	.30	.46	.39 <sup>***</sup>	.29
Bachelor's Degree	36,987	.21	.41	.18 <sup>***</sup>	.22
Advanced Degree	36,987	.20	.40	.14 <sup>***</sup>	.21
<i>Income</i>					
\$30,000 or less	36,130	.31	.46	.40 <sup>***</sup>	.30
\$30,001-\$50,000	36,130	.17	.37	.17	.17
\$50,001-\$75,000	36,130	.16	.36	.16	.16
\$75,001-\$100,000	36,130	.13	.33	.10 <sup>***</sup>	.13
\$100,001 or more	36,130	.24	.43	.17 <sup>***</sup>	.25
<i>School Characteristics</i>					
Private	42,215	.09	.29	.07 <sup>***</sup>	.10
<i>Region</i>					
Northeast	42,215	.17	.37	.15 <sup>*</sup>	.17
Midwest	42,215	.21	.41	.22	.20
South	42,215	.36	.48	.47 <sup>***</sup>	.36
West	42,215	.26	.44	.16 <sup>***</sup>	.27
<i>Positive Classroom Behavior</i>	25,007	3.71	.96	2.82 <sup>***</sup>	3.79

Notes: Test significance indicates differences between non-diagnosed students and students diagnosed with ADHD. † p < .10, \* p < .05, \*\* p < .01, \*\*\* p < .001

**Table 2.2 Logistic Regression Coefficients for ADHD Diagnosis on Student-Teacher Relationships and Explanatory Variables, ECLS-K: 2011, 1<sup>st</sup>-3<sup>rd</sup> Grade Waves (N=18,768)**

	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
<b>ADHD</b>	-.33 <sup>***</sup>	(.03)	-.30 <sup>***</sup>	(.03)	-.24 <sup>***</sup>	(.03)	-.08 <sup>**</sup>	(.02)
<b>IRT Score</b>			.01 <sup>***</sup>	(.00)	.01 <sup>***</sup>	(.00)	-.00 <sup>***</sup>	(.00)
<b>Student Characteristics</b>								
Female					.29 <sup>***</sup>	(.01)	.14 <sup>***</sup>	(.01)
Race								
Black					-.17 <sup>***</sup>	(.02)	-.15 <sup>***</sup>	(.02)
Hispanic					.03 <sup>*</sup>	(.01)	-.02 <sup>*</sup>	(.01)
Asian					-.02	(.02)	-.07 <sup>***</sup>	(.01)
Other race					-.01	(.04)	-.07 <sup>†</sup>	(.04)
Two or more races					-.06 <sup>*</sup>	(.02)	-.07 <sup>**</sup>	(.02)
Age					-.01 <sup>***</sup>	(.00)	-.00 <sup>*</sup>	(.00)
<b>Parent Characteristics</b>								
Education								
Less than HSD					-.04 <sup>†</sup>	(.02)	-.04 <sup>*</sup>	(.02)
HSD/Equivalent					-.03 <sup>†</sup>	(.02)	-.02	(.02)
Som. Col./Voc. Prog.					-.05 <sup>***</sup>	(.01)	-.02	(.01)
Bachelor's Degree					.01	(.01)	.01	(.01)
Income								
\$30,000 or less					-.14 <sup>***</sup>	(.02)	-.11 <sup>***</sup>	(.01)
\$30,001-\$50,000					-.07 <sup>***</sup>	(.02)	-.05 <sup>***</sup>	(.01)
\$50,001-\$75,000					-.04 <sup>**</sup>	(.01)	-.04 <sup>**</sup>	(.01)
\$75,001-\$100,000					.02	(.01)	.00	(.01)
<b>School Characteristics</b>								
Private School					-.02	(.02)	-.00	(.01)
Region								
Midwest					.03 <sup>*</sup>	(.02)	.02	(.01)
South					.03 <sup>†</sup>	(.01)	.02	(.01)
West					-.03 <sup>†</sup>	(.01)	-.02 <sup>†</sup>	(.01)
<b>Positive Behavior</b>								
Constant	4.34 <sup>***</sup>		3.86 <sup>***</sup>		4.49 <sup>***</sup>		3.43 <sup>***</sup>	

Notes: Omitted categories are white, advanced degree, \$100,001 or more, and Northeast. Sample size varies by missing for the Student-Teacher Relationship Scale and the Positive Classroom Behavior Scale. Robust standard errors are in parentheses. † p < .10, \* p < .05, \*\* p < .01, \*\*\* p < .001

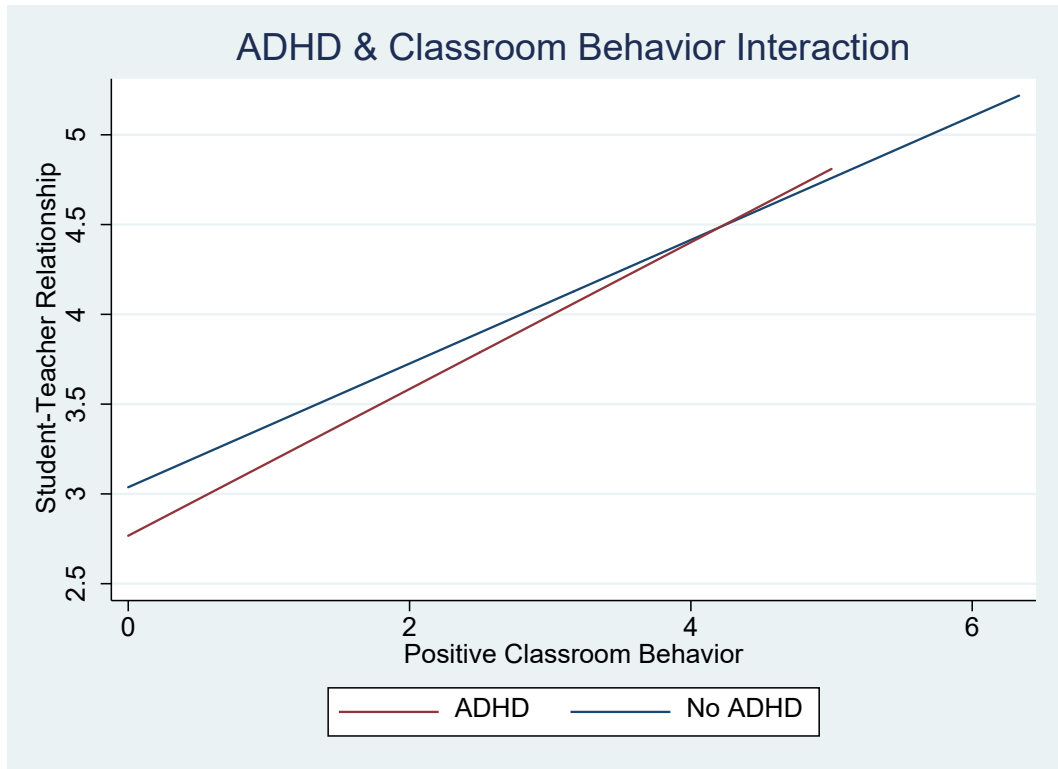
**Table 2.3. Logistic Regression Coefficients for ADHD Diagnosis and IEP Status on Student-Teacher Relationships, ECLS-K: 2011, 1<sup>st</sup>-3<sup>rd</sup> Grade Waves (N=9,657)**

	Model 1	Model 2	Model 3	Model 4
No IEP	-.48***	-.47***	-.39***	-.15***
IEP	-.49***	-.36***	-.28***	-.08

Notes: Omitted categories are white, advanced degree, \$100,001 or more, and Northeast. Sample size varies by missing for the Student-Teacher Relationship Scale, the Positive Classroom Behavior Scale, and IEP Status. Robust standard errors are in parentheses. †  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$



**Figure 2.1. Interactional Effect of an ADHD Diagnosis and Positive Classroom Behavior on Student-Teacher Relationships, ECLS-K: 2011, 1<sup>st</sup>-3<sup>rd</sup> Grade Waves (N=18,776)**



Notes: Omitted categories are white, advanced degree, \$100,001 or more, and Northeast Sample size varies by missing for the Student-Teacher Relationship Scale and the Positive Classroom Behavior Scale.

**Table 4.1. Descriptive Statistics for Teacher and School Personnel Categories**

Group Characteristics	Teacher Categories					
	Skeptics	Unfamiliar	Misguided	Familiar	Personal	Experts
<i>Who are they?</i>	A skeptic does not believe that all students diagnosed with ADHD actually have the disorder	An unfamiliar does not know much about or is not familiar with ADHD.	A misguided has faulty ideals about ADHD and its impact in the classroom.	A familiar has a lot of familiarity with ADHD in a school setting.	A personal expert has personal experience with ADHD.	A professional expert has professional experience with ADHD.
<i>Gender</i>						
Female	2	5	2	4	1	4
Male	3	3	1	3	2	
<i>Race</i>						
White	4	4	3	5	3	3
Black		1				
Hispanic	1	3		2		1
Asian						
Other race						
<i>Number of Years Teaching</i>						
1-5	1	1		1	1	
6-10		2		2		
11-15	1					1
16-20	2	3		3	1	1
21-25	1	1		1	1	
25+		1	3	1	1	2
<i>Subjects Taught</i>						
Math	1	1		1	1	
Science	1	1	1	1	1	
Core	1	2	1	4	2	
Physical Education						
Art	1					1
Technology					1	
ELD/Intervention					1	
Special Education/Resource		2	1			3
School Psychologist/Counselor	1	1				
<i>Taught Advanced Instruction</i>						
Yes	1	1	1	1	2	
No	4	7	2	6	1	4

Notes: Sample sizes for categories: Skeptics (N=5), Unfamiliar (N=9), Misguided (N=3), Familiar (N=7), Personal Experts (N=3), Professional Experts (N=4).

**Table 4.2. Teacher and School Personnel Descriptions of the ADHD Diagnosis**

Category	Brain	Difficulty Focusing	ADHD	Movement	Environment	Easily Distracted	Overstimulation	Impulse Control
<i>Skeptics</i>	1	1	3		2			
<i>Unfamiliar</i> s		5	4	2			1	
<i>Misguided</i> s	2	2	2	1	1		1	1
<i>Familiar</i> s	1	4	3	1		1		
<i>Personal Experts</i>	1	2	1	1		1	1	
<i>Professional Experts</i>		1	1	2				1

Notes: Sample sizes for categories: *Skeptics* (N=5), *Unfamiliar*s (N=8), *Misguided*s (N=3), *Familiar*s (N=7), *Personal Experts* (N=3), *Professional Experts* (N=4). This table displays what teacher and school personnel categories respond when they are asked, "What do you think ADHD is?"

**Table 4.3. Teacher and School Personnel Descriptions of ADHD in the Classroom**

Teacher Category	Trouble Focusing	Movement	Organization	Distracted/ Not Paying Attention	Compulsive	Incomplete Work	Fidgety
<i>Skeptics</i>	3	3		4	1		1
<i>Unfamiliar</i> s	2	7		5	1		3
<i>Misguided</i> s		1	2				
<i>Familiar</i> s	1	6	1	2		2	1
<i>Personal Experts</i>	2	3		4			
<i>Professional Experts</i>	1	2		2	1		1

Notes: Sample sizes for categories: *Skeptics* (N=5), *Unfamiliar*s (N=8), *Misguided*s (N=3), *Familiar*s (N=7), *Personal Experts* (N=3), *Professional Experts* (N=4). This table displays what teacher and school personnel categories respond when they are asked, "Can you describe what ADHD looks like in the classroom?"

**Table 5.1. Teacher Behavior Descriptive Table**

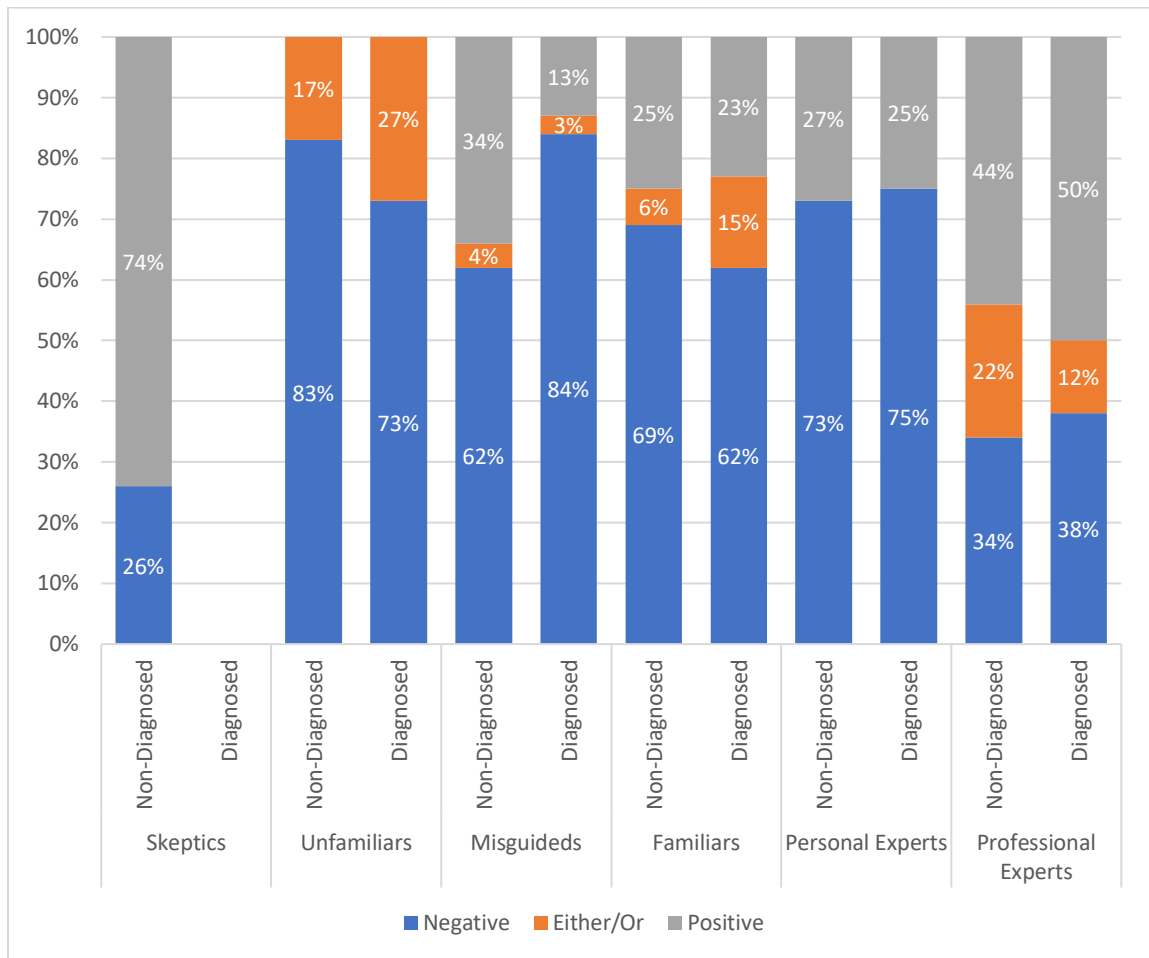
<b>Treatment Type</b>	<b>Coding Schema</b>
<i>Negative Treatment</i>	Treatment that is less than desirable, which is characterized by hostility, pessimistic views, and cruel behavior
Harsh Treatment	Harsh is defined by interactions with teachers that were unpleasantly rough when speaking to their students
Reprimands	Reprimands occur when students sustain a severe reproof or rebuke by teachers and/or school personnel, who on school grounds are figures of authority to students. These reprimands often started out tolerant (though not pleasant) and got progressively punitive—characterized by condemnation, stern tones and disciplinary action—as they continued to increase in one class period
Directives	A directive is an authoritative order that serves to direct a student
Dismissal	Dismissal is recognized as the act of treating something as undeserving of genuine consideration. This could manifest in the classroom in a few ways; students might receive a response to the like of, “I’m done with you,” or they may instead be given a nonverbal response. A nonverbal response occurs when the authority figure either ignores a student or utters an annoyed/frustrated sound, even sometimes in conjunction with a snap of their fingers or negative body language, such as a talk to the hand gesture.
Teasing	Teasing is the act of making fun of someone or something
<i>Positive Treatment</i>	Treatment that is recognized as desirable treatment in the classroom. Features of positive treatment might consist of affirmations, friendly interactions, and optimistic views
Accommodations	Occurs when teachers and/or school personnel make special accommodations for their students
Positive Reinforcement	Positive reinforcement is the addition of a positive consequence following a behavior that increases the likelihood of the desired behavior occurring again in the future
Reasoning	Reasoning refers to the utilization of negotiations in discussions between teachers/school personnel and students
<i>Either/Or Treatment</i>	Treatment that can be either negative or positive in nature
Redirection	The goal of redirection is to change the direction of something

**Table 5.2. Teacher and School Personnel Behavior Breakdown**

Teacher Category	Positive									
	Harsh	Reprimands	Directives	Dismissal	Teasing	Accommodating	Reinforcement	Reasoning	Redirection	
<i>Skeptics</i>	Low	Low	Low	Low	Mid	High	High	High	Low	
<i>Unfamiliar</i>	Mid	Mid	Mid	Mid	Low	Mid	Mid	Mid	Mid	
<i>Misguideds</i>	High	High	High	High	High	Low	Low	Low	High	
<i>Familiar</i>	Mid	Low	Mid	Mid	Low	Mid	Mid	High	High	
<i>Personal Experts</i>	Low	Mid	Mid	Mid	Mid	High	Mid	Mid	High	
<i>Professional Experts</i>	Mid	Mid	Mid	Mid	Low	Mid	Mid	Mid	High	

Notes: Sample sizes for categories: *Skeptics* (N=5), *Unfamiliar* (N=8), *Misguideds* (N=3), *Familiar* (N=7), *Personal Experts* (N=3), *Professional Experts* (N=4). This table breaks down the ways that teachers and school personnel act toward the students in their classrooms, both diagnosed and undiagnosed students. Each category received a measurement of high, mid or low for the different behavior attributes that have been identified as consistent with the treatment of students or the behavior towards students that teachers displayed while I was observing. This memo will help to outline the second chapter of my dissertation.

**Figure 5.1. Teacher and School Personnel Treatment of Students**



Notes: Skeptics (N=5), Unfamiliar (N=8), Misguided (N=3), Familiar (N=7), Personal Experts (N=3), Professional Experts (N=4). The diagnosed category of students includes both students with a confirmed diagnosis and those who teachers suspected of having a diagnosis, though a diagnosis could not be confirmed. Percentages are presented instead of a total count of observations for each treatment category because not all teacher and school personnel categories classrooms were observed, and some categories classrooms were observed more than others due to lack of access to classrooms for observation (see Chapter 3 for a more detailed discussion of the qualitative methods issues encountered during this project).

## Appendices

### Appendix 2.1. Variables Included in Analyses: ECLS-K: 2011, 1<sup>st</sup>-3<sup>rd</sup> Grade Waves

Variable	Coding Schema
<i>Key Independent Variable</i>	
ADHD Diagnosis	Positive diagnosis of ADHD and/or ADD coded as 1
<i>Dependent Variable</i>	
Student-Teacher Relationship	Mean scale of 15 items. A low score represents a negative student-teacher relationship, while a high score reflects a positive student-teacher relationship. Teachers are asked to rate their relationships with their students by answering to the following situations: "I share an affectionate, warm relationship with this child" "This child and I always seem to be struggling with each other," "If upset, this child will seek comfort from me," "This child is uncomfortable with physical affection or touch from me," "This child values his/her relationship with me," "When I praise this child, he/she beams with pride," "This child spontaneously share information about himself/herself," "This child easily becomes angry at me," "It is easy to be in tune with what this child is feeling," "This child remains angry or is resistant after being disciplined," "Dealing with this child drains my energy," "When this child is in a bad mood, I know we're in for a long and difficult day," "This child's feelings towards me can be unpredictable or can change suddenly," "This child is sneaky or manipulative with me," and "This child openly shares his/her feelings and experiences with me." These measures were developed by Pianta and Steinberg (1992), and come from their published piece, "Teacher-child relationships and the process of adjusting to school."
<i>Subject Specific IRT Scores</i>	Average IRT Test Score for math, science and reading subject specific tests
<i>Student Characteristics</i>	
Age	Measured in months
Sex	Female=1
Race	Coded in dummies for White (non-Hispanic) (reference category), Black (non-Hispanic), Hispanic, Asian, Other race, or Two or more races
<i>Parent Characteristics</i>	
Income	Annual household income categories: \$30,000 or less, \$30,001-\$50,000, \$50,001-\$75,000, \$75,001-\$100,000, \$100,001 or more (reference category)
Education	Highest level of parental education, coded in dummies: Less than high school degree, High school diploma or equivalent, Some college or vocational program, Bachelor's degree, Advanced degree (reference category)
<i>School Characteristics</i>	
Control	Private School=1
Region	Midwest, South, West, Northeast (reference category)
<i>Positive Classroom Behavior</i>	Mean scale of 4 items, with values ranging from 1-5. A low score reflects negative classroom behavior, and a high score reflects positive classroom behavior. Teachers are asked to determine, on a five-point scale, if it is "almost always untrue" to "almost always true" that a student: "Is easily distracted when listening to a story," "Can stop him/herself when s/he is told to stop," "When working on an activity, has a hard time keeping his/her mind on it," "Has an easy time waiting," and "Is good at following directions."

**Appendix 2.2: Logistic Regression Coefficients for ADHD Diagnosis on Student-Teacher Relationships Interaction Models, ECLS-K: 2011, 1<sup>st</sup>-3<sup>rd</sup> Grade Waves (N=18,768)**

	ADHD x Behavior	
	B	SE
<b>ADHD</b>	-.30 <sup>***</sup>	(.08)
<b>IRT Score</b>	-.00 <sup>***</sup>	(.00)
<b>Student Characteristics</b>		
Female	.14 <sup>***</sup>	(.01)
Race		
Black	-.15 <sup>***</sup>	(.02)
Hispanic	-.02 <sup>*</sup>	(.01)
Asian	-.07 <sup>***</sup>	(.01)
Other race	-.07 <sup>†</sup>	(.04)
Two or more races	-.07 <sup>**</sup>	(.02)
Age	-.00 <sup>*</sup>	(.00)
<b>Parent Characteristics</b>		
Education		
Less than HSD	-.04 <sup>*</sup>	(.02)
HSD/Equivalent	-.02	(.01)
Som. Col./Voc. Prog.	-.02	(.01)
Bachelor's Degree	.01	(.01)
Income		
\$30,000 or less	-.11 <sup>***</sup>	(.01)
\$30,001-\$50,000	-.05 <sup>***</sup>	(.01)
\$50,001-\$75,000	-.04 <sup>**</sup>	(.01)
\$75,001-\$100,000	.00	(.01)
<b>School Characteristics</b>		
Private School	-.00	(.01)
Region		
Midwest	.02	(.01)
South	.02	(.01)
West	-.02 <sup>†</sup>	(.01)
<b>Positive Behavior</b>	.31 <sup>***</sup>	(.00)
<b>ADHD x Behavior</b>	.08 <sup>**</sup>	(.02)
<b>Constant</b>	3.46 <sup>***</sup>	

Notes: Omitted categories are white, advanced degree, \$100,001 or more, and Northeast. Sample size varies by missing for the Student-Teacher Relationship Scale and the Positive Classroom Behavior Scale. † p < .10, \* p < .05, \*\* p < .01, \*\*\* p < .001



## Appendix 3.1. Teacher and School Personnel Interview Protocol<sup>11</sup>

### Introductory Statement

Hi! Thank you so much for taking the time to meet with me. I am looking forward to hearing about your experiences as a teacher.

### Background

First, we are going to talk about you.

1. What grade are you currently teaching?
2. How long have you been teaching?
3. What grades have you taught?
4. What kind of schools have you taught at?
5. Why did you choose to become a teacher?

### Diagnosis

Now I would like to talk a little bit about what you know about ADHD

6. What do you think ADHD is?
7. Can you describe to me what ADHD looks like in a classroom?
8. Do you think there are differences between a diagnosed student in a regular grade level classroom versus a diagnosed student in an advanced classroom?
9. What sort of expectation might you set for a diagnosed student?
10. Have you ever had, or do you currently have students with ADHD?
11. Did having a diagnosed student with ADHD happen to change your perception of what ADHD is?
12. How do you handle a diagnosed student in your classroom?
13. Why do you think the rates of ADHD diagnosed students have increased so rapidly in recent years?
14. Have you ever referred a student to be seen by a professional because you believe they may have had ADHD?
15. Do you know what happened after you referred the student?
16. What do you think parents/guardians should do in dealing with their child's ADHD?
17. How do you think ADHD impacts students?
18. What about in the classroom?
19. Do you think ADHD impacts student's achievement? How so?
20. How are diagnosed students treated by their peers?
21. Do you feel like you are able to adequately meet the needs of your diagnosed students currently? What might help you?
22. What do you think can be done to better prepare these students for academic success?
23. Do you think it gets in the way when they are at school? Tell me how.
24. Have you heard other people talk about ADHD?
25. Who was it?
26. What did they say about it?
27. Do you think a diagnosis impacts the potential to graduate?

### Medication

28. Do any of your students take medicine for their ADHD?
29. Do you think the medicine helps with school? Why or why not?
30. Do you think the medicine has any side effects?

### Final statement

Thank you so much for talking with me. I had so much fun getting to hang out with you!

31. Is there anything else you would like to share with me?

---

<sup>11</sup> This interview protocol was just a guide for my interviews with teachers and school personnel. Depending on the flow of the conversation during the interview and due to the fluid nature of interviews, questions may have been asked out of order; however, all the same questions were asked of all participants.

**Appendix 6.1. Teacher and School Personnel Prompted Guardian Discussion Frequency Table**

<b>Teacher Category</b>	Try Different Strategies	Communicate with Teachers/School	Research ADHD	Talk to Experts	Medication When Necessary	Always Expectations	Be Consistent/Set Work	Check Teachers Trust	Not Be in Denial
<i>Skeptics</i>	2	1	1	2	2	1	1	2	2
<i>Unfamiliar</i>	3	3	1	2	2	1	1	1	1
<i>Misguided</i>	1	2	1	1	1	1	1	1	1
<i>Familiar</i>	2	2	1	2	2	1	1	1	2
<i>Personal Experts</i>	2	1	1	1	1	2	2	2	2
<i>Professional Experts</i>	1	2	2	2	2	2	2	1	1

Notes: Sample sizes for categories: Skeptics (N=5), Unfamiliar (N=8), Misguided (N=3), Familiar (N=7), Personal Experts (N=3), Professional Experts (N=4). This table represents and attempts to break down the ways that teachers and school personnel think parents/guardians should be dealing with their students ADHD. In general, teachers and school personnel suggest that guardians try different strategies, communicate with teachers/school, medicate only when necessary and be consistent/expectations. Teachers and school personnel have very strong opinions on what and how guardians should deal with ADHD, and in many instances are very judgmental when it comes to guardians handling of ADHD. Each category received a count of how many times they stated one of the options in the table.

**Appendix 6.2. Teacher and School Personnel Unprompted Guardian Discussion Frequency Table**

<b>Interview Question</b>	<b>Skeptics</b>	<b>Unfamiliar</b>	<b>Misguided</b>	<b>Familiar</b>	<b>Personal Experts</b>	<b>Professional Experts</b>
Have you ever referred a student to be seen by a professional because you believe they have ADHD? What happened?	1	2	2	2	2	1
Do you think that medication helps students when they are at school?	2	1		2	1	1
Why do you think that the number of ADHD diagnoses have increased so rapidly?	1	3		1	1	1
How do you think ADHD impacts student's achievement?	1			1	1	1
What do you think can be done to better prepare ADHD diagnosed students for academic success?	1	1		1		2
Do you know of any side effects that are associated with any of the medications?		2		1		1
Do you think there might be a difference between a student who is diagnosed with ADHD in a regular grade level classroom versus a student with ADHD in an advanced classroom?		1		2		

Notes: Sample sizes for categories: Skeptics (N=5), Unfamiliar (N=8), Misguided (N=3), Familiar (N=7), Personal Experts (N=3), Professional Experts (N=4). This table represents and attempts to understand when teachers discuss guardians in an unprompted manner. Teachers were very eager to discuss guardians at various point throughout their interviews. They have very clear views about how guardians should handle various aspects with regard to an ADHD diagnosis. Each category received a count of how many times they answered one of the questions listed in the table.