ATTENTION-DEFICIT HYPERACTIVITY DISORDER: THE SOCIOCULTURAL
INFLUENCES ON ADHD KNOWLEDGE AND DIAGNOSIS DECISION MAKING

by

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A DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the Department of Anthropology
in the Graduate School of
The University of Alabama

TUSCALOOSA, ALABAMA

2012
ABSTRACT

Based in biocultural medical anthropological theory, this project was designed to explore the diagnosis decision-making process in families whose elementary school children may be suffering from Attention-Deficit Hyperactivity Disorder (ADHD). Children in kindergarten and first grade (n=211) were evaluated for ADHD by their classroom teachers and assigned a risk category (low risk, high risk but undiagnosed, and previously diagnosed). A series of interviews was conducted with parents (n=51) of children in all three risk categories to evaluate their knowledge and beliefs about ADHD; their beliefs about parenting and the characteristics of “good” parenting and a “good” home life; perceptions about status competition; and their level of psychosocial, including emotional and financial, stress. In the third phase of the study, teachers at two of the study schools (n=20) were interviewed about their knowledge of ADHD and their ideas of appropriate classroom functioning and student behavior.

It was believed that there was considerable diversity in the reasons behind why families chose to either accept or reject a diagnosis of ADHD for their children. More specifically, it was hypothesized that increased caregiver strain in the form of psychosocial and emotional stress, financial pressure, and performance pressure (perceived status competition) would affect the ascription of ADHD symptoms in children by their parents and, thus, elevate their risk of developing the disorder. Furthermore, it was hypothesized that belief in a cultural model of mother blame among caregivers and teachers would affect the number of ADHD symptoms found in children.
Several variables associated with caregiver strain were positively associated with ADHD symptom level. Differences in symptom level as assigned by teachers and parents were also found according to a key set of characteristics believed to be associated with a model of mother blame. This project suggests the importance of shared cultural meaning and the role of social structural forces to the lay ADHD diagnosis decision-making process.
DEDICATION

To all my family whether ‘by the blood, by the ring, or by the back door’
**LIST OF ABBREVIATIONS AND SYMBOLS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ADHD</td>
<td>Attention-Deficit/Hyperactivity Disorder</td>
</tr>
<tr>
<td>ANXDEP</td>
<td>Combined measure of anxiety and depression risk</td>
</tr>
<tr>
<td>F</td>
<td>Ratio of variances</td>
</tr>
<tr>
<td>M</td>
<td>Mean</td>
</tr>
<tr>
<td>N, n</td>
<td>Number</td>
</tr>
<tr>
<td>ODCD</td>
<td>Combined measure of risk for oppositional defiant and conduct disorders</td>
</tr>
<tr>
<td>p</td>
<td>Probability of results or outcome</td>
</tr>
<tr>
<td>PSS</td>
<td>Perceived Stress Scale</td>
</tr>
<tr>
<td>SD</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>t</td>
<td>Computed value of t-test</td>
</tr>
<tr>
<td>VADPRS</td>
<td>Vanderbilt ADHD Diagnostic Parent Rating Scale</td>
</tr>
<tr>
<td>VADTRS</td>
<td>Vanderbilt ADHD Diagnostic Teacher Rating Scale</td>
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<tr>
<td>α</td>
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<td>Less than or equal to</td>
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ACKNOWLEDGEMENTS

It is said that it takes a village to raise a child. The same can be said about writing a dissertation. First and foremost, I want to thank my dissertation committee. I am especially indebted to my committee chair and mentor, Dr. Kathryn S. Oths. The depth and breadth of her knowledge in all things have continually amazed me, and her untiring dedication to her work is inspiring (if not slightly enviable). I am thankful for having the opportunity to learn under Dr. James R. Bindon. He is one of the most gifted teachers I have ever known, and his skill at “making the familiar strange” even for the most widely accepted topics is unrivaled. Working with Dr. Jason A. DeCaro has been a privilege. His research reminds me that the anthropology of children, childhood, and family life is a worthwhile endeavor. Dr. William W. Dressler has challenged me often over the years, and I am grateful for his skill at teaching theory, method, and statistics and for his supreme confidence in the role belief has on the life one leads. Many thanks also go to Dr. Debra M. Nelson-Gardell whose thoughtful insight and discussion as this project was planned and this dissertation written are greatly appreciated.

A world of thanks goes to the Lafayette Parish School System for opening its doors and welcoming my research. I am especially thankful to have had the opportunity to work alongside four incredible principals: Carol Mays of J.W. Faulk Elementary, Stacy Danos of Live Oak Elementary, Gwen Lewis of Prairie Elementary, and Nicholas Thomas of Ernest Gallet Elementary. From my first visit to their schools, they
encouraged my research, offered me helpful feedback, and gave me their full support.
Thanks also goes to the kindergarten, first, and second grade teachers at the study
schools. They sent home and kept up with a dizzying amount of paperwork for me and
were always positive and helpful despite their already full work days. I am grateful to
those teachers at Live Oak and Prairie Elementary Schools who agreed to be interviewed
and share with me their considerable experience in the world of early education.

I am deeply indebted to the parents and caregivers who welcomed me into their
homes and endured three rounds of interviews. Without their dedication, this dissertation
would not have been possible. Thank you for sharing your world with me and helping
me learn.

My friends and family have been a source of constant support and encouragement
along this journey. To Martina Thomas, Krista Garcia, and Michelle Satcher: thank you
for coming into my world as fellow students and staying to be my friends. Special thanks
go to my parents, Jerrel and Debbie Townsend. You have always believed in me more
than I have ever believed in myself—even before you understood what medical
anthropology was all about. Many thanks also go to my husband Troy, who graciously
agreed to share me with graduate school. Thank you for your listening ears, your
encouraging words, and your rock-solid confidence in me.

Finally, I am grateful to the University of Alabama for fostering such a wonderful
learning environment and for providing me the funding to see my dreams accomplished.
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Chapter 1: Introduction

Attention-deficit hyperactivity disorder (ADHD) is one of the most common pediatric disorders facing American children today (Searight and McLaren 1998). The impact the disorder can have on the lives of those diagnosed and their loved ones is overwhelming. In addition to dealing with ADHD, sufferers often endure a “dented quality of life” with decreased emotional, physical, and financial wellbeing (Al-Sharbati et al. 2008:264). The consequences of having the disorder are so severe that identifying those at risk and the specific risk factors for ADHD top the research agendas of the nation’s government-sponsored health organizations, such as the National Institutes of Mental Health and the Centers for Disease Control and Prevention (CDC). In other words, who gets sick and why are of utmost importance.

Answers to those questions are typically based on the premise that ADHD is the manifestation of neurophysiological dysfunction. A biologically-based model of disease and treatment has been central to ADHD research since George Still’s (1902) earliest accounts of an ADHD-like disorder and continues to dominate the research landscape today (Barkley 1990, Biederman 2005, Faraone et al. 2005).

While this mode of explanation is popular among lay and scientific audiences, it has been unable to address several key issues regarding ADHD’s natural history and cross-cultural diversity. Researchers have yet to present conclusive evidence for ADHD’s causal mechanisms, and no medical test exists to definitively determine whether or not a child has the disorder. Furthermore, explanations of ADHD relying exclusively on biology cannot completely account
for differences in prevalence at the community, state, and international level. In the United States, for example, state-level ADHD prevalence rates released by the CDC in 2007 vary widely and range from less than 5% in Colorado to more than 11% in Alabama; differences are demonstrable at the regional level as well (Bloom and Cohen 2007).

The old way of studying ADHD—as a disorder belonging strictly to the realm of biology in its manifestation and the sole property of biologically-oriented disciplines for research—leaves too many questions unanswered to remain unchallenged. Clearly, ADHD research should include examination of social and cultural forces. Anthropology, specifically medical anthropology, offers the chance to understand ADHD and the children it affects biologically, culturally, and socially.

The promise that anthropology provides for ADHD research has yet to live up to these high expectations, however. This is primarily because such a small body of literature has been produced by anthropologists. Some pieces have been interested in the cross-cultural existence of ADHD and diversity in prevalence rates (Brewis, Schmidt, and Meyer 2000, 2002; Jacobson 2002, 2003). Others have taken a more localized view and have approached the disorder at the microsocial level (Carpenter-Song 2009, Garro and Yarris 2009).

This study attempts to go beyond current anthropological research on ADHD in two ways. First, it was important to map the landscape of cultural models of ADHD and of social expectations for the domains pertinent to the social environment in which the child lives. Examining these cultural beliefs and their patterns may shed light on how disorder risk is assessed within the lay community.

Shared meaning has repeatedly been shown to significantly impact many facets of health. Health beliefs are critical to identifying one’s health problem or, using a set of shared symptoms,
whether or not one is at risk. Chavez et al. (2001), for example, worked with five groups of people—newly immigrated Mexican and Salvadoran women, Mexican women who have lived in the United States for some time, Anglo women, and physicians—to assess the extent of group knowledge regarding risk factors of cervical cancer. Newly immigrated Mexican and Salvadoran women agreed on risk factors and emphasized immoral sexual behavior (e.g. ranking abortions and many sexual partners highly but general sexual relations as very low) and physical trauma as causes of cervical cancer. Physicians ranked greater exposure to sexual activity through earlier sexual relations (likely with multiple partners) and consequences of sexual activity, such as sexually transmitted diseases, as the strongest risks of developing cervical cancer. Mexican women who had lived in the United States and Anglo women fell somewhere in between.

According to Chavez and his research team, these varying models contributed to the unequal use of cervical cancer preventative care seen among the populations. The groups of women who tended to rank highly stigmatized sexual practices as the primary cause for cervical cancer were unlikely to seek out screenings for the disease. Because of their beliefs, they did not believe cervical cancer was a health threat.

Chavez’s work is but one example in a rich tradition of research on the power of meaning and belief to one’s health. This body of work has demonstrated that belief can vary by cultural context (see, for instance Rubel’s (1964) work on the ‘cultural syndrome’ susto). More importantly for the individual, belief affects the entire sickness process from risk assessment (as Chavez’s work demonstrates) to interactions with health professionals (Brown 2007; Finkler 1984, 1994) and the healing process (Moerman 1983).
Research related to health beliefs has demonstrated that people’s knowledge is often shared but is rarely uniform. The limited research that exists for ADHD also shows this to be true. Bussing, Schoenberg, and Perwien (1998) focused on differences in ADHD knowledge by ethnicity. They found that fewer Black parents had heard of ADHD than White parents. Those who had heard of the disorder held different explanatory models based on their ethnicity. Black parents also reported receiving fewer educational materials about ADHD than White parents.

In this research, it is hypothesized that variation in health beliefs will affect the lifecycle of ADHD in households. ADHD is already a highly contested childhood disorder, and variation in beliefs is believed to give families extended flexibility in choosing whether or not to apply a diagnostic label to their children.

This does not mean that community-established rules and regulations regarding childhood behavior can be ignored by families, however. How these spheres of influence fit together—in the words of Bronfenbrenner (1986) how “intrafamilial processes [are] affected by extrafamilial conditions”—becomes a crucial empirical issue. Several extrafamilial forces are believed to play a role on the ascription of ADHD symptoms in young children. These include caregiver emotional strain, financial stress, and perceived performance pressure.

Levels of perceived stress in parents are important not only to parental wellbeing (Cohen and Williamson 1988) but also to parent-child interactions (Menaghan 1991) and child wellbeing. If parental stress is great enough, it is hypothesized that parents may reach a point at which they are more likely to consider employing a diagnosis of ADHD for their children.

All over the world, the poor have had to bear a larger burden of disease than their richer counterparts (Farmer 2005). This is true for ADHD as well; research suggests that children in the poorest families had higher prevalence rates than children in wealthier families (Bloom and
Being poor often makes raising a child with a significant health problem even more challenging. Children with disabilities cost more to raise than children without them (Steyn, Schneider, and McArdle 2002). In some cases, however, having a health problem may have its benefits among the poor. Children and their families may be eligible for additional resources or opportunities they might not have had access to otherwise (Abadía-Barrero 2004, Kubik 1998).

Parents, especially mothers, are often under great pressure to perform and have their children perform well. In later years, many children and young adults admit to using stimulants (often used to treat ADHD) in non-prescribed ways to improve their academic performance (Teter et al. 2006). In their children’s early years, however, mothers are often responsible and scrutinized by others for the actions of their children (Singh 2002). If external pressure is great enough and their children’s behaviors are problematic enough, it may be possible that mothers turn to a diagnosis of ADHD.

This study is particularly interested in the various types of strain—psychosocial and emotional, financial, and performance pressure—caregivers often have to face. By examining these variables, this study hopes to better understand how the pressure exerted by and family responses to social structural forces can impact diagnosis decision making.

This research addresses two questions similar to those posed by institutes like the CDC in the opening paragraph of this chapter: (1) Within a given social setting—a particular classroom, school, or home—which children develop ADHD? (2) Of those children who become labeled with ADHD, which factors account for their families’ willingness to accept or adopt a diagnosis of ADHD?
To address these questions, research was conducted in Lafayette, Louisiana, from February 2010 to May 2011 and was divided into three phases. During Phase I of the project, approximately 200 kindergarten and first grade students at four local elementary schools were screened for ADHD by their teachers using the Vanderbilt ADHD Diagnostic Teacher Rating Scale (VADTRS, Wolraich et al. 1998). The scale produced a continuum of scores so that a student could be classified as more or less likely to develop ADHD. Based on these scores, children were divided into three groups: those at low risk of developing ADHD, those at high risk, and those who were already diagnosed with ADHD.

After the initial screening process, the caregivers of 50 elementary students—across categories of socioeconomic status (approximated through school attended), age, and risk—were interviewed on three separate occasions during Phase 2. These interviews were conducted to determine what parents considered to be “normal” or appropriate behavior for early elementary students and what they considered to be abnormal behavior consistent with ADHD. The information collected also provided insight into the expectations parents placed on themselves and others in the role of caregiver.

To obtain a diagnosis for ADHD, a child must generally exhibit symptoms in at least two settings; for young children, these are typically the home and school. It is likely then that illness information is collected from and decisions about illness adoption involve children’s schools. Therefore, it was imperative to interview the teachers themselves. During Phase 3, kindergarten and first grade teachers at two elementary schools were interviewed. These interviews outlined teachers’ expectations of children in their classrooms as well as their expectations of the children’s parents. Expectations of parents and teachers could then be compared.
It is believed that considerable intracultural diversity exists in ADHD knowledge and decision making in the United States. This study attempted to describe knowledge among parents and teachers of elementary school students and to test how this knowledge may affect the lifecycle of ADHD in households. The findings gleaned from this research may be used to improve identification of key social and cultural factors that affect ADHD diagnosis, especially in clinically vague cases, that will lead to better prevention measures and to offer insight for public health officials, doctors, and families as they make important health decisions.

Chapter 2 details the theoretical framework used in this study. The significance and history of medical anthropology, especially the theoretical revolution in the latter half of the 20th century that paved the way for a biocultural theoretical orientation, are discussed. Next, a discussion of psychiatric anthropology and its relevance to the current study is included. Biocultural psychiatric anthropological research on ADHD is then considered. Finally, the variables of theoretical interest to this study are explored.

Chapter 3 is divided into two major sections. The first half of the chapter is dedicated to examining the biological understandings of ADHD. The second half of the chapter traces the social history of ADHD. Both are integral to fully understanding ADHD.

Chapter 4 provides a review of the literature on Louisiana. First, the landscape of and historical changes to the state’s geography are discussed. Louisiana was not only changed by natural forces but also by the inhabitants of the state itself. Discussions of the Native American, African, European, and Acadian influence are included. For most of the chapter, Louisiana is considered as a state. Research suggests that, like many places, Louisiana is far from monolithic. Thus, the development of the city of Lafayette—from its physical location to its changing ethnic identity—is examined.
Chapter 5 begins with further information about the study’s setting. This includes descriptions of each of the study schools. From there, the chapter outlines the methods used to complete the research. Information about the sampling techniques, interview instruments, and plans for data analysis are found here. The methods portion of the chapter is broken down by research phase.

Chapter 6 covers the descriptive statistics for this study. First, information is offered for the student population based on the data gathered during the initial teacher screening (Phase I). Student statistics for the entire population are given before they are further divided by school and for the sample included in subsequent phases. Next, caregiver data from the initial caregiver interview is presented. Changes to the study sample are then discussed. Finally, statistical information is provided for the teacher sample interviewed in Phase III.

Chapter 7 offers insight into the definition of normalcy across several domains. Parents and teachers’ views on normal childhood behavior are mentioned first. Then parents’ beliefs about the important qualities of a “good home life” and caregiver obligations to prepare children for school are examined. Descriptions of teachers’ expectations of children and their parents as related to the classroom are also considered.

Chapter 8 presents teacher and parent beliefs about ADHD. The topics in this chapter include caregivers’ understandings of ADHD’s signs and symptoms, the diagnosis process, its treatment, life outcomes, and causation.

Chapter 9 focuses on assessing how various factors affect the risk of developing ADHD in children. Risk variables were divided into two categories based on the models of causation that emerged in Chapter 8. The first model of causation is one of caregiver stress and competition; this model is a literature-based one and was the foundation on which the initial
study hypotheses were based. The second model is one of mother blame and emerged through caregiver and parent interviews.

Chapter 10 explores in greater detail the comparison caregivers made between ADHD children and zombies. The language used to describe the sick can be very powerful and can affect popular perception and appropriate social interactions. This chapter outlines traditional characteristics of zombies before comparing them to both unmedicated and medicated ADHD children. Chapter 11 documents the stories of five boys and their mothers as they are confronted with the idea of ADHD. Each of the mothers’ stories recounts how their children’s behaviors came to be viewed as problematic, the conflict they experienced internally and externally, and the decisions about diagnosis acceptance and treatment they ultimately made.

Chapter 12 summarizes the results of the research. Models of normal childhood behavior, abnormal childhood behavior manifested as ADHD, and good home life are summarized. How these models may impact the development of ADHD in young children is then discussed. Finally, conclusions and implications for future research in and beyond the field of anthropology are offered.
Chapter 2: Theoretical Framework

The purpose of this project is to examine the development of ADHD and the process of diagnosis among elementary school students. Special attention is paid to understanding which children become sick and why their families choose to accept or adopt a label of ADHD. Several hypotheses are put forth to answer these questions. It is hypothesized that risk of diagnosis and diagnosis acceptance varies by: 1) psychosocial and emotional stress of caregivers; 2) by socioeconomic status; 3) by level of status competition; 4) by amount of economic resources available; and, 5) by one’s ability to match cultural models of motherhood.

In this research, both the questions asked and the methods employed to analyze them are based on a biocultural theoretical framework. While the etiology of ADHD is typically viewed as genetic, biology alone is insufficient to explain differences in prevalence at state and national levels, people’s perceptions of the disorder, and decision-making processes once diagnosed. Instead a more holistic framework—one that considers structural constraint and cultural construction, etic and emic—is necessary to fully address topics like these (Dressler 2001).

There are three objectives of this chapter. First, anthropological theory and its transition toward a biocultural framework are outlined. Then the balance between the biological and the cultural in psychiatry is discussed. Finally, the theoretical significance of each of the variables used to form the questions and hypotheses driving this research is examined.
Describing the Elephant, Defining Theory

In the beginning of their academic careers, many anthropologists are told a story of several blindfolded individuals who are asked to describe an unknown animal by touch (which the listeners know to be an elephant). Depending on their perspectives—holding a tail, touching a trunk, or grasping a tusk—the individuals provide remarkably different descriptions of the same animal. The lesson learned is that one’s initial viewpoint heavily influences the final perception of the subject. It is an early warning for students of the field to acknowledge the importance of perspective and the questions and answers it generates.

For more than a century, anthropologists have grappled with how to best describe their proverbial elephant, culture, wholly and effectively. While the orientations proposed have been many and varied, the insight into culture they have provided has been limited, and no overarching, unified theory of culture has yet to exist. The challenge of identifying culture and studying it successfully is true for both the entire discipline and for medical anthropology.

Many medical anthropologists in pursuit of a unified cultural theory grounding work on health and sickness, including myself, have adopted a biocultural theoretical orientation. The ultimate goal of using this theoretical orientation is to recognize humans holistically. This means that researchers should be equally concerned with understanding how the social and cultural world affects human biological functioning, how the range of biological functioning shapes the social and cultural world, and how people understand these interactions. While often difficult to achieve in practice, finding balance—balance between the biological and the sociocultural, the etic and the emic, the individual and the population, and the micro- and the macrolevel—in one’s work is the ultimate goal for biocultural medical anthropologists.
In recognizing the importance theoretical orientation can have on one’s research interests, questions, and outcomes, this chapter outlines three bodies of anthropological theory that have shaped this research. How family ecology, shared meaning, and social structural forces affect individual health are discussed below.

*Family Ecology*

Humans are highly dependent on caregivers for physical and emotional support for the first several years of their lives. It is believed that this dependency has created a heightened sensitivity among children to interactions with their caregivers (Flinn and England 1995). The significance of family ecology is so substantial, in fact, that it can and does affect children’s physiological wellbeing. Below are a few examples of how culture, which shapes childrearing practices, is linked to measures of biological functioning.

A biocultural theoretical approach argues that “genetic material does not produce finished traits but rather interacts with environmental experience in determining developmental outcomes” (Bronfenbrenner and Ceci 1994:571). The relationship between biology and environment is both early and extensive, and its impacts on health can be immediate, long-lasting, or both. Beginning in utero, for example, children whose mothers have a “dietary imbalance”—too much food, too little, or not meeting nutritional requirements—are at greater risk of developing a myriad of health problems, including kidney problems, hypertension, and other metabolic disorders (Gluckman et al. 2008).

Once children are born, their health problems may also include premature death. In their 2005 article, McKenna and McDade explored the often-controversial topic of infant co-sleeping. They found that traditional medical advice, which counsels mothers never to sleep with their infants, was poor advice indeed. Instead, they argue that mother-infant co-sleeping is what
humans have been evolutionarily designed to do. Furthermore, they suggest it is not necessarily the practice of bed-sharing that is harmful but the circumstances in which it is practiced that are problematic. Infant deaths related to co-sleeping were most common among the poor and those suffering under “stressful circumstances including chaotic households” (2005:142). These stressful circumstances included drug and alcohol use by the co-sleeping parent.

In addition to failing to meet their biological needs, parents may not meet their children’s psychological ones. These too can have a significant impact on child health. DeCaro’s research has shown that childrearing practices and parental behaviors, including maternal warmth and maternal functioning, affect neuroendocrine and cardiovascular functioning in children as they are transitioning into kindergarten (DeCaro and Worthman 2008a, DeCaro and Worthman 2008b). Cortisol levels, a marker of chronic stress, increase among children as parent-child dysfunction increases, for example (DeCaro and Worthman 2008a).

Stresses that occur in childhood can have long reaching effects as well. Dickson-Gómez and her colleagues (2006) demonstrated that women who suffered from sexual abuse as children suffered a great deal of psychological trauma and social stigmatization in their early years as a result. As a result, many of the women turned to prostitution and drug use. Participation in these two activities put them at greater risk of being abused in adulthood and drastically raised their chances of contracting HIV. The authors warned that HIV prevention programs targeted at increasing HIV-related knowledge among prostitutes were not enough to decrease HIV risk. These programs needed to help girls avoid sexual abuse in order to stop the vicious cycle that often resulted in HIV.

These few illustrations suggest that family functioning, especially beginning with pregnancy and lasting through early childhood, is critical to biological functioning and overall
wellbeing in children. The quality of these early years has the potential to carry considerable and long-lasting repercussions.

Shared Meaning

In order for individuals to function in society, they must share knowledge of how the world works. People must recognize, for example, that a red light signifies that one should come to a stop. This shared knowledge covers a multitude of topics or cultural domains. Research has demonstrated that people share knowledge for such diverse cultural domains as lifestyle and social support (Dressler, Balieiro, and Dos Santos 1997, Dressler and Bindon 2000), ethnic identity (Caulkins 2001), and understandings about food in both adults (Szurek 2004) and children (Roos 2002, Townsend 2008).

Knowledge is shared among many domains related to health and illness as well. In fact, shared meaning affects the entire course of the illness process. At the onset of illness, cultural knowledge can affect which illnesses one may develop. In certain portions of the world, one may develop susto (Rubel 1964) ataques de nervios (Guarnaccia, Lewis-Fernandez, and Rivera Marano 2003) or debilidad (Oths 1999). While these conditions may appear similar to biomedical conditions, they have been shown to be distinct illnesses (Guarnaccia et al. 2003). The effect of shared meaning on illness identification is more than a non-Western phenomenon, however. Payer’s (1996) study explored differences in biomedicine among four nations. She discovered that etiology was differentially attributed to the liver among the French, the heart in Germany, and the bowels in Britain.

The interactions between health professionals and the sick are also heavily influenced by shared meaning. Meaning defines how interactions between health care providers and patients are supposed to occur (Brown 2007). Participants in Brown’s (2007) work described how
important the physical attributes and the sequences of events were to a good clinical encounter. In *espiritualismo*, a lay medical tradition in Mexico, a patient’s physical problem is attributed to a bad spirit or is viewed as a gift that can make the sufferer a healer; both are different from biomedical explanations. Because their health problems are not viewed biomedically, patients of spiritualist healers undergo different treatments, including cleansings, massages, and baths (Finkler 1994).

Shared meaning not only affects diagnosis and treatment but it is also strongly linked to biological functioning. Lende (2005:121, emphasis in original) examined drug use, addiction, and abuse in Colombia; more specifically, his intent was to examine “both *how* and *why* individuals compulsively want drugs.” Lende (2005) began with a theory from neurobiology: incentive salience. This theory outlines the biological pathways of how one comes to want the drugs. From there, he wanted to “ground and expand” the biological framework by incorporating ethnographic fieldwork. By using anthropological methods, he was able to elicit the dimensions of incentive salience through interviews and link a biological explanation of risk with social learning and context surrounding drug use and abuse. Doing the research without one part—either the neurobiological theory or the ethnographic fieldwork—would have been incomplete. Lende (2005:101) writes, “The role of an intentional, meaning-making person… became important in understanding why the drug experience was salient to the individual, and not just how a shift in attention and engagement [two aspects of incentive salience] happen in the brain.”

Illness outcomes are also tied to shared knowledge. Cannon (1957) reported that in his experience, a victim of sorcery was unlikely to recover if he or she did not believe the sorcery had been reversed through a special ritual. Although *susto* defies biomedical classification, those
suffering from it were found to have higher mortality rates than those without *susto* (Rubel and Moore 2001).

This body of research has demonstrated just how important belief can be to one’s health. Belief can influence the disorders diagnosed, the interactions with and treatment by health providers, and health outcomes. Perhaps most significantly to those interested in biocultural medical anthropology, it offers a way to closely link biological and sociocultural processes.

*Structural Constraints on Family Life*

The two previous sections have demonstrated family ecology and shared cultural knowledge about health and illness are important to the quality of health individuals can enjoy. While these two areas of study are strong in many ways, they are somewhat lacking in their ability to see sickness as situated in time and space.

In many ways, this research has been influenced by the theory of critical medical anthropology espoused by Singer (1990) and others. Critical medical anthropologists emphasize the role social environment and historical interactions between social classes can have on health and wellbeing (Wiley 1992). In his introductory text to medical anthropology, Joralemon (2005) shows that while other theoretical perspectives may explain how two strains of *Vibrio cholerae* developed and how people coped with the epidemic, only critical medical anthropology examined why and under what sociopolitical circumstances cholera became such a huge problem in those countries. He suggests that abandoned development ventures in Latin America by more industrialized nations left waterways and other infrastructure incomplete or in disrepair providing cholera with an easy way to spread. For Latin America, both poor infrastructure and bacteria are causes for the cholera epidemic. In Singer’s (1990:182) words, it is not only wise but necessary that medical anthropologists put “the microlevel in macrocontext.”
The work of critical medical anthropologists has repeatedly demonstrated that the burden of many diseases falls disproportionately to various segments of society. Singer and Clair’s (2003) essay on syndemics describes how it is not only possible but likely for certain individuals to contract multiple diseases of epidemic proportions at the same time. Individuals suffering from both tuberculosis and HIV, for example, had shorter life expectancies than those with just one of the diseases. These people were also more likely to be homeless or in prison. Farmer (2005) came to similar conclusions. He found that tuberculosis continues to be a special problem among prisoners serving sentences in countries formerly belonging to the Soviet Union. In these prisons, tuberculosis has often morphed into multi-drug resistant tuberculosis, unaffected by the “one-size-fits-all empiric regimens” of basic drugs that are more “cost-effective” than and preferred over more powerful treatments. If a prisoner contracts this virulent form of tuberculosis, the likelihood of recovery is slim. Farmer (2005) argues then that many prisoners are sentenced to death for even the simplest crimes.

Differential health outcomes cannot be eliminated or even examined without putting them in context as Singer (1990) urges. Biocultural researchers should not be content to study a health problem because it exists without asking the question of why it exists. By using the theoretical principles outlined under a critical medical anthropology, it is hoped this research will explore beyond proximate causation.

*The Biocultural Approach*

Disregarding the functioning and limitations of the human body or the importance of the social fabric to human existence unnecessarily limits an understanding of health and sickness. Using small, often disjointed, segments of theory gives researchers only a piece, a limited perspective, of the proverbial elephant they study. Many medical anthropology theorists believe
that unifying a variety of theoretical concepts under the heading of biocultural medical
anthropology is the most appropriate way to gain a holistic understanding of health and sickness.

A recent search for the word biocultural conducted through JSTOR and limited to
anthropology journals resulted in 1,426 hits; 831 of these items were published after 1991, a year
after an entire issue calling for a more integrative medical anthropology appeared in the journal
Medical Anthropology Quarterly (search conducted September 6, 2011). Medical anthropology
research claiming to be biocultural has been both extensive and expansive.

While there have been many successes, medical anthropology research that adopts a
unified biocultural theoretical orientation has oftentimes proved challenging to put into practice.
Anthropology has encouraged holism as foundational to the discipline, but division between sub-
disciplines, especially biological and cultural anthropology, is common for a variety of reasons
from ideological to administrative (Leatherman 2005). Although biocultural medical
anthropologists have attempted to bridge the divide, the links between and among sub-disciplines
remain fragile. Furthermore, the inclusiveness that a biocultural synthesis espouses makes it
difficult for theorists and practitioners alike to define a clear research agenda and corresponding
methods. They are continually challenged to find and maintain balance—to balance the
biological with the sociocultural, the etic and the emic, the individual and the population, and the
micro- and the macrolevel—among the competing interests of different theoretical perspectives.

Some have turned to cognitive anthropology and its methods to maintain this balance.
Cognitive anthropologists study collective meanings and how they shape both individuals’
experiences with health and sickness and their differential health outcomes (Dressler 2005).
More specifically, a lack of fit with one’s environment—the result of a disconnect between
shared cultural values and an individual’s beliefs and actions—is stressful and a potential opportunity for disease.

While cognitive approaches have been quite successful (Dressler 2005), Leatherman and Goodman (2011) argue that it may not be necessary to “quantify” culture in explicitly cognitive anthropological terms order to do biocultural work. They argue, “What is important is to take culture seriously as it structures and is structured by human action, and to elicit the voices and perceptions of individuals with which we work (Leatherman and Goodman 2011:35). This research strives to be an example of this by attempting to understand shared cultural meanings about ADHD and family life and how they may affect diagnosis. Moreover, it looks at how various potential structural constraints—caregiver stress, household financial stress, status competition, and inability to meet cultural standards of motherhood—may affect symptom assignment.

Psychiatric Anthropology

Like anthropology, psychiatry has struggled with bridging the gap between the biological and the cultural, a gap widened by a long tradition of research that distinguishes between a disorder’s form and its content (Gaines 1992). A disorder’s form is based on certain unchanging characteristics that determine its cause and structure and is believed to be rooted in biology. A disorder’s content refers to its different manifestations between and among groups of people. Content is shaped by social and cultural factors (Kleinman 1988).

The division between form and context and the research it has generated are explored in further detail below. The first section is dedicated to examining the psychiatry of form, which brought psychiatric research down a path toward understanding universal symptoms and disease correlates. The second section addresses some of the problems with overemphasizing form and
universalism in psychiatry. The third section hopes to rectify this error by discussing the importance of including culture in the research and description of mental disorders. Finally, studies within the psychiatric anthropology literature on ADHD—an attempt at bridging the form and content gap—are explored.

*Psychiatry as Form: The Case of Schizophrenia as a Universal Phenomenon?*

Around the same time that the ecological-evolutionary approach began to take off in anthropology, there was a push in the psychiatric research community to understand the universal features of mental disorders. One of the most notable of these was the International Pilot Study of Schizophrenia (IPSS). Backed by the World Health Organization, the IPSS was designed to document the appearance of and differences in schizophrenia cross-culturally. Sartorius, Shapiro, and Jablensky (1974) outlined three questions the IPSS would strive to answer: 1) Can multi-site, multinational research on schizophrenia (or any other disorder) be done effectively? 2) Can research methods and instruments be developed so that researchers feel confident they are measuring the same disorder in different places? 3) Do people around the world suffer from a similar complex of symptoms that can be identified as schizophrenia?

The incredible volume of information the IPSS research team compiled in a few short years led those leading the project to confidently answer “yes” to all three of their initial questions. Support for the first question which asked whether or not this type of cross-cultural research could be done effectively came from assessments of patients’ mental health state when presenting to local mental health clinics. Symptoms of 1,200 study participants at the nine study locations were evaluated by two people, one of whom was always a psychiatrist. Both inter-rater and inter-research center reliability for diagnostic labeling were very high and ranged from 82 to 100% (Sartorius, Shapiro, and Jablensky 1974).
One of the biggest challenges researchers for the IPSS faced was ensuring schizophrenia was measured in such a way that it did not vary considerably between and among research sites. Using statistical analysis, several researchers attempted to see if there was a cluster of schizophrenia-related symptoms, also called first-rank symptoms (FRSs), which appeared across all research sites. The World Health Organization’s (1973:19) report states that FRSs “are of no theoretical value, they are not regarded as ‘primary’ symptoms, ‘basic’ symptoms, etc.; they are symptoms simply that have empirically turned out to be of the greatest diagnostic importance.” Carpenter, Strauss, and Bartko (1974) found that there was a set of 9 symptoms that could be used effectively to diagnose schizophrenia across sites. These symptoms were associated with a diagnosis of schizophrenia in approximately 90% of cases (Wing and Nixon 1975). When combining all of this information, the IPSS researchers felt confident that schizophrenia, characterized by a complex of symptoms, was common around the world. As long as clinicians could identify this set of symptoms, it did not matter in what cultural setting they worked or if other symptoms were also present at the time of diagnosis.

While the IPSS team was explicit in stating its research goals, it is the one left unsaid that proves the most compelling. If schizophrenia occurs around the world with the same core symptoms for all people, the relationship between psychiatric disorder and biological dysfunction would be greatly strengthened. If psychiatric disorders were the result of biological dysfunction, it could be said with confidence that specific physiological pathways for disorder existed—even if they had not yet been discovered— and that a cure was both possible and likely. Furthermore, differences in syndrome appearance between research sites, as mentioned in the previous paragraph, could be chalked up to cultural idiosyncrasies and disregarded.
The Problem with Universalism in Psychiatry

Like the ecological-evolutionary medical anthropologists, scientists who backed the notion of universal psychiatric disorder worked to further the understanding of humans as biological organisms who lived with specific parameters of neurophysiological functioning. As was the case with its anthropological counterpart, a psychiatry based on universal form carried considerable flaws.

First, a universalistic approach lacks the power to describe variability, a key feature in biological theory. Kleinman (1988) notes that in the IPSS study mentioned above, the authors repeatedly promoted conclusions that supported their claim of schizophrenia’s universality while downplaying any variability they saw place to place. While diversity is believed to drive the process of evolution, of biological change over time, variability is seen as highly problematic in the world of psychiatric disorder (Kleinman 1988). Universalism typically relies on the presence or absence of biomedical markers. While biomedicine has biology at its foundation, the two are not synonymous. Seemingly objective biological outcomes should be separated from culturally-laden biomedical ideas (although the outcomes themselves may still be culturally subjective, Gaines and Hahn 1984).

A universalistic approach is also limited by its reliance upon a common principle within biomedicine: the notion of specific etiology. Psychiatry has overemphasized that each disease has a unique set of symptoms with one cause and one cure. A theory of specific etiology lacks usefulness when it comes to humans because there are only a fixed set of responses a body can react to health-causing problems (Dubos 1977) and because a myriad of factors usually contribute to sickness formation (Kleinman 1988).
Another important consideration is that many psychiatric disorders have no definitive biological correlates (Fabrega 1972). Over the last century, the influence given to biology over the manifestation of psychiatric disorder has increased. Kleinman (1988:2) writes that although little headway has been made in terms of identifying biological markers or understanding specific neurobiology, “enough progress has been made on the physiological correlates… to justify the dominant paradigm of heterogeneous disorders with specific biological sources” in psychiatry. ADHD is but one example of a psychiatric disorder linked to brain dysfunction but with no clear medical pathways as proof (Furman 2008).

For anthropologists, perhaps the most glaring fault of a universalistic, biomedically-based approach to disease is that it does not account for the transactional nature of sickness, the negotiation between biological functioning and the sociocultural environment (Landy 1977). Kleinman (1988:3) describes the relationship in this way:

[The] fundamental questions in psychiatry—how to distinguish the normal from the abnormal; how disorder is perceived, experienced, and expressed; why treatments succeed or fail; indeed the purposes and scope of psychiatry itself—are all caught up in a reciprocal relationship between the social world of the persona and his body/self (psychobiology). For the anthropologist, the form and functions of mental illness are not “givens” in the natural world. They emerge from a dialectic connecting—and changing—social structure and personal experience.

In anthropology, failing to account for the social or the cultural leads to a skewed and restricted understanding of culture. The same is true for psychiatry. Accounting for the role of the social environment allows researchers to dismantle the notion that “while normality is cultural, abnormality is acultural and universal” (Gaines 1992:8). This is discussed further in the following section.
Anthropologists studying issues of psychiatry felt a critical component of their work was to describe the differences between and among societies in terms of what constituted disorder. Refining the concept of and reevaluating the barrier between the normal and abnormal—said to be the “key problem of psychiatry” (Devereux 2000:217)—in emic terms became an important avenue of research. For Ackerknecht (1943), when one attempted to identify an individual as normal or abnormal, there were two standards by which the distinction should be considered: an intracultural and an external (western) standard. To describe intracultural normality, the terms autonormal and autopathological were used; that is, an individual who was not seen as remarkably different (in terms of psychiatric functioning) from his community would be labeled as normal while one viewed as deviant would be seen as pathological. The terms heteronormal and heteropathological were used in a similar way but from the perspective of an outsider and with the intent of operating under a seemingly more objective system of diagnostic criteria. An individual, therefore, could be both autonormal and heteropathological. Ackerknecht (1943) takes as his example the shaman whose “ritual possession” is seen as a normal and logical way of functioning in his society while for Westerners, for example, the shaman would be labeled as suffering from one or another psychiatric disorder.

While terms like these were a vast improvement to the biomedical-only view of health and sickness, their utility was still limited. A disorder seen as both autopathological and heteropathological, for instance, did not necessarily mean that the local system and the biomedical system viewed the disorder in the same way. Ataques de nervios is a cultural syndrome found in Puerto Rico. Its symptoms can include violent shaking, crying, rapid heartbeat and palpitations, and seizures (Guarnaccia et al. 1993). Many Western physicians have
been tempted to classify an ataque as an anxiety disorder or depression. While those who were diagnosed with a psychiatric condition according to DSM criteria were also more likely to have suffered from an ataque, the two were found to be distinct. In other words, there are members of the population who suffer from an ataque but do not meet diagnostic criteria for anxiety disorders or depression or who are diagnosed with these psychiatric disorders but have never suffered from an ataque. These individuals are left unaccounted for if traditional biomedical psychiatric diagnoses and ataques de nervios are considered to be synonymous.

Research highlighting cultural syndromes like ataques de nervios showed how psychiatric disorders could be the result of not only biological but also social dysfunction. Susto is a Latin American illness that typically presents with depression-like symptoms, including listlessness, fatigue, depression, and introversion (Rubel 1964). While biomedical practitioners may claim that susto and depression are synonymous, there are several sociocultural components to susto that are not included in depression diagnoses and cannot be overlooked. First is the disorder’s etiology. A person who is asustado—that is, suffering from susto—has experienced a sudden fright resulting in the detachment of his or her soul from the body. In order for a person to feel better, someone from the social group must call the soul back to the sick person. The etiology extends even further into the realm of the sociocultural, however. In his examination of susto in the Chiapas region of Mexico, Rubel (1964) determined that those suffering from susto were also those individuals suffering from the most social stress. People suffering from susto were failing to meet their conventional social roles; men fell short of community expectations while women disappointed others in the domestic scene.

Debilidad, an illness found in the Peruvian highlands, is yet another example of an illness that does not map onto disorders established and sanctioned by biomedicine. And like susto, it
too has an important sociocultural component. Sufferers of debilidad are overwhelmingly post-menopausal women who exhibit aches and pains, such as headaches, body aches, vision problems, and dizziness; such complaints are said to be the “result of the embodiment of life’s accumulated hardship” (Oths 1999:309). Women in this region typically carry a heavy burden in terms of production and reproduction. Once women have surpassed their prescribed social roles, their social status diminishes and leaves them vulnerable. Furthermore, other unfortunate events can leave the women’s households in precarious situations. Having too many or too few children or being unbalanced in terms of the number of men and women in a household can further exacerbate the stress a household faces. As Oths (1999) notes, debilidad then becomes a way for community members, especially older women, to share their vulnerability in a culturally appropriate way.

The Anthropology of ADHD: Biocultural Studies

One disorder whose biological universality has been widely contested is attention-deficit hyperactivity disorder, or ADHD (Conrad 1975, Conrad and Potter 2000, Searight and McLaren 1998). The desire for researchers to delineate between the normal and abnormal as Benedict (1934), Devereux (1956), and others have done but within contemporary society has drawn considerable interest to ADHD in fields like sociology (cf. Singh 2002, 2003, 2004; Rafalovich 2001, 2005). Fewer studies in anthropology have been conducted, but these contributions have provided insight into a disorder about which so little is known. These articles are reviewed below.

Brewis, Schmidt, and Meyer (2000, 2002) conducted research among Colombian and American elementary school children using a biocultural approach. Classroom teachers were asked to evaluate their students’ behavior, academic performance, and social functioning; these
were then compared to “‘external referrents’” of behavior measurement, such as the monitoring of activity through accelerometry. According to the authors, these assessments indicate that ADHD was similarly experienced in both countries and could not be considered a culturally-specific phenomenon. Although the authors did not report any intercultural differences in ADHD experience between Colombian and American students, they observed patterned intracultural variation among Mexican school children (Brewis and Schmidt 2003). In the 2003 study, the researchers measured activity levels and made observations of classroom behavior for a sample of students who had not been diagnosed with ADHD. These data were compared to teacher and parent evaluations of behavior. While they found that boys did appear to be more susceptible to ADHD, a finding widely replicated in studies of the disorder, parents did not rate the behaviors of their children differently by gender. Teachers did, however; they tended to record more inattentive (but not hyperactive) behaviors among boys than did parents. Brewis and Schmidt (2003:388) write, “Based on teachers' reports, boys could be at an increased risk of referral for attention problems for reasons unconnected to how they actually behave.” Gender, they conclude, is at least one factor that may influence how “children’s psychiatric symptoms are ascribed” (Brewis and Schmidt 2003:399).

Jacobson (2002, 2003) has also contributed to the cross-cultural examination of ADHD within anthropology. His work explores differences in the definitions of normal and abnormal childhood behavior in England and the United States. Using a combination of participant observation, focal individual sampling, and interviewing, Jacobson found that there were cross-cultural differences in the way ADHD-related behaviors were viewed within the classroom; thus, those children who may be classified as having ADHD in the United States based on teacher observation may not be labeled as such in English classrooms. He proposed that the labeling of
behaviors as appropriate or not, a key factor in the diagnosis of ADHD, is “highly contextual” (Jacobson 2002:284).

Other anthropological research has moved away from cross-cultural study in favor of analyzing the disorder at the macrosocial (Lakoff 2000) and microsocial (Carpenter-Song 2009, Garro and Yarris 2009) levels.

Lakoff’s (2000) paper draws from a wide range of sources in an attempt to trace ADHD’s monumental rise at the end of the 20th century. He examines how macrosocial forces—how changes in the discipline of psychiatry, the formation of a cohesive theory of evolutionary biology, pharmacotherapy, and increased adoption of ADHD-based identities among those affected—helped shape how the disorder is understood today.

Recent works within the discipline have also attempted to illuminate the disorder at one of its most basic levels: the microsocial. Carpenter-Song (2009) documents the lived experiences of three families as they struggle with raising children who have ADHD (and/or pediatric bipolar disorder). Although they battle similar financial hardships and lead similarly structured daily lives, the families struggle in unique ways with understanding their child’s diagnosis and with choosing treatment. Whether or not ADHD is a universal diagnostic category, Carpenter-Song (2009) argues its lived experiences are not homogenous. Instead, the discourse surrounding ADHD can be framed in any number of ways and may include ideas of oppressive social control and racism or quests for self-control and certainty.

Similarly, Garro and Yarris (2009:559) used data gathered through a larger interdisciplinary study of dual-earner middle class families in the Los Angeles area (the Center on the Everyday Lives of Families) to document the experiences of a family with a child who has ADHD. Their goal was to describe how the child’s condition “is experienced and relationally
enacted in everyday contexts.” In addition to completing an interview regarding health and well-being with the parents, the researchers videotaped family interactions during everyday experiences. These interactions provided insight into how “well-being and illness become part of everyday family life” (Garro and Yarris 2009:561).

**Summary**

Kleinman (1988) writes, “[W]e are once again left with evidence of both cross-cultural universals and particularities, cross-cultural support for the dialectical view that ‘life requires both the determination of the environment and the physical body.’” It is hoped that the previous sections have emphasized that researchers in anthropology, psychiatry, and psychiatric anthropology must work hard to maintain, as Kleinman (1988) suggests, a balance between the biological and the sociocultural world without disregarding or undervaluing one or the other. In the future, this requires research into universal correlates of mental disorder and acknowledgment that culture can and does play a part in the formation, validation, and progression of mental disorders.

**Variables of Theoretical Interest**

For decades, social scientists have argued that the quality of one’s sociocultural environment can impact morbidity and mortality by acting as a key predisposing factor to disease (see Cassel’s (1976) work as an example). Although there is no etiological specificity when suffering trauma in the social environment (e.g., the death of a spouse could result in any number of adverse health outcomes), trauma can and does increase overall susceptibility.

Trauma—and the resources used to combat it—are dependent upon the social context in which they are found. Scotch’s (1963) research among the Zulu demonstrated that each group
experienced different stressors based on their residence. Being post-menopausal was significantly associated with blood pressure in the rural but not urban community because, Scotch (1963) argues, it signaled the end of fertility, the primary marker of status among rural Zulu women. The view of fertility changed when a Zulu woman moved into the urban community. Having a large number of children was considered something of a “liability” because it hindered a woman’s opportunities as a wage laborer. Scotch (1963:1212) concludes that it is not the cultural change itself that is stressful; one’s ability to “meet or adapt to the demands” of life alters one’s risk.

The research presented here continues this tradition in social science of viewing the social environment as a risk factor in the development of disease, namely ADHD. In the following paragraphs, several sociocultural variables and their potential significance on the development of ADHD are explored. These include: 1) the psychosocial and emotional stress of caregivers; 2) household financial stress; 3) status competition; and, 4) cultural standards of motherhood.

*Psychosocial and Emotional Stress*

Two types of psychosocial and emotional stress will be evaluated in the current study: perceived stress and job strain. Levels of perceived stress are important to parental wellbeing (Cohen and Williamson 1988), parent-child interactions (Menaghan 1991) and child wellbeing. In adults, research indicates that stress affects the natural history of health problems as varied as the common cold (Cohen, Tyrrell, and Smith 1993) and coronary artery disease (Rozanski, Blumenthal, and Kaplan 1999). It is posited that stress suppresses immune response, leaving an individual more susceptible to agents of disease (Miller, Cohen, and Ritchey 2002).
Parent-child interactions are also impacted by parental stress. Under greater stress and usually without support, distressed parents of children who misbehave tend to respond in ways “that require less cognitive effort and less interpersonal negotiation” (Menaghan 1991:428); if faced with child resistance, parents may choose to give up all together. Once parents reach a point in which they are no longer able to cope, they may be more susceptible to employing a diagnosis of ADHD for their children.

The stress associated with parenting is compounded when children suffer from a disability like ADHD. ADHD diagnosis in children is correlated with parental stress and reduced parenting effectiveness (Johnston and Mash 2001). Children with ADHD are more likely to have parents who are separated or divorced and are also more likely to have families involved in family therapy (Fischer 1990). “Risky” homes like these—that feature high levels of aggression and poor interpersonal relationships—set up a cascade of poor child health outcomes that begin in infancy (Repetti, Taylor and Seeman 2002). These include disruptions in neuroendocrine functioning and participation in risky health behaviors, such as substance abuse.

Caregivers’ pressure at work may also impact a child’s risk of ADHD by disrupting parent-child interactions. In order to cope with increased work stressors, parents either tend to withdraw from interaction with their children or increase their aggression toward them (Menaghan 1991). This leads to a disruption in parenting practices, which may cause behavioral problems (Mann and MacKenzie 1996).

The type of work parents do may also affect the types of behavior they value among their children; Bronfenbrenner (1986) notes that working-class fathers who were expected to follow orders in the workplace tended to stress obedience in their own children while middle-class fathers emphasized independence. Job stress may also be a problem among teachers as well.
Research conducted in one state determined that expulsion and suspension rates of preschool students was, in part, determined by the level of stress a teacher experienced (Gilliam and Shahar 2006). That is to say, teachers were more likely to perceive classroom behaviors as deviant while under greater stress.

Financial Stress

Concerns about finances can and do affect developmental outcomes and ADHD prevalence (Biederman 2005, Chronis et al. 2007). Children whose families made under $20,000 had the highest prevalence of ADHD; similarly, those below or near poverty status were more likely to be diagnosed with ADHD than those who were not considered to be poor (Bloom and Cohen 2007). Perhaps what is most disheartening about Bloom and Cohen’s (2007) findings is that those children whose health status was considered ‘fair’ or ‘poor’—who, in other words, may already be using a considerable portion of available household financial resources for healthcare—were 2 to 3 times more likely to develop ADHD than those with other health status classifications.

Farmer (2005:50) has called poverty “the world’s greatest killer” while at the same time has lamented the lack of attention it has received. Research has shown that children whose families are currently poor and whose families have been poor in previous generations have more restricted cognitive development and emotional health than their richer peers (Najman et al. 2004). Put another way, the importance of the “social inheritance” of sickness cannot be ignored (Conley and Bennett 2000).

In some instances, however, adopting an illness label may prove helpful. Brazil provides an excellent example of how a life-threatening disease can be turned into a viable way of life—at least for some. Brazil is home to a highly progressive HIV/AIDS treatment program for poor
children who have no family support. The program includes treatment for the disease and provides the children with education and opportunities for social mobility they most likely would not have had otherwise (Abadía-Barrero 2004). For poor children in Brazil, a diagnosis of HIV/AIDS kept them off the streets, in clothing, and with food; it gave them a chance. In the words of one informant, “it was better to have AIDS than to be poor” (Abadía-Barrero 2004:168).

ADHD in the United States, like HIV/AIDS in Brazil, may be one of the “diseases of poverty-privileged responses” (Abadía-Barrero 2004:163). In some instances here, it seems, disease may be adaptive too. Children who qualify as disabled under the Social Security Administration’s Supplemental Security Income (SSI) program, for example, are eligible for additional benefits that help not only the child but also the family. Kubik’s (1999) research showed that after the liberalization of the SSI program in 1990, parents were more likely to identify chronic disabilities, particularly mental disabilities, in children if they could receive more money under the SSI program. While the rate of disability among children in families who earned too much money to receive SSI benefits hovered around 3% between 1987 and 1994, the rate of disability among poor children rose from 8% in 1987 (and approximately 9% in 1990, the year of SSI liberalization) to more than 12% by 1994 (Kubik 1999). More importantly, families who applied for SSI benefits on behalf of their children were more likely to be successful with their benefit claims if their children had ADHD than those with other disabilities (Ando 2007).

Seeking benefits may also be a way for families to make up for money they have already spent on caring for a child. Although ADHD cost the United States between $36 and 52 billion dollars in 2005 (CDC 2009), the government does not bear all of the expenses associated with caring for ADHD children. Disabled children, even those on state benefits, are expensive for
families to care for—as much as three times more expensive than non-disabled children (Steyn, Schneider, and McArdle 2002). Parents often must pay some health care expenses out of pocket and also may lose money by missing work at jobs that offer little flexibility for parents trying to care for a child with increased needs (Litt 2004, Lukemeyer, Meyers, and Smeeding 2000).

This research hypothesizes that as caregivers feel increased financial pressure they will be more likely to accept a diagnosis for their at-risk children. It is believed this is especially significant among families with lower socioeconomic status.

*Performance Pressure*

Prescription drugs, particularly those classified as methylphenidates, have been a mainstay treatment for ADHD since it was first identified. Methylphenidates, psychostimulants used to treat ADHD, have been shown to improve overall functioning inside the classroom and out for a majority of patients although it is uncertain how long these benefits will last.

The supposed benefits of stimulant medications have increased their “off-label” use (treatment not approved by the FDA). Students (primarily college students) report that greater demands in school have led them to try stimulant medications (Hall et al. 2005, Teter et al. 2006). Students reported that taking stimulants helped improve concentration and alertness and helped them study better overall (Teter et al. 2006).

Prescriptions that increase performance are also an important subject in sports. For example, use of the psychostimulant modafinil, originally a treatment for narcolepsy that has been prescribed off-label to those with ADHD, was questioned after an Olympic sprinter tested positive for it (Kaufman 2005). Although it has been prescribed for several health problems, modafinil has also been shown to increase cognitive functioning in healthy individuals (Kaufman 2005).
The scant empirical research that has documented stimulant use among those who do not have ADHD tends to support these ideas. Stimulant use enhances ability in mundane, repetitive, and boring tasks (Diller 1998); increases performance in mental and physical abilities; and intensifies focus—among those with and without ADHD (Diller 1998, Searight and McLaren 1998).

The seriousness of “cosmetic neurology” is detailed in an extensive article that appeared in *The New Yorker* a few short years ago (Talbot 2009). It presents numerous accounts of individuals who seek out diagnoses for disorders like ADHD for the sole purpose of attaining stimulant drugs in order to maximize their attention levels, memorization and recall skill, and efficiency. Finding the right type, dosage, and mixture of stimulant medication is seen to be crucial to gaining a competitive edge in school or work; in more extreme cases, it is hoped that it will prolong life—perhaps indefinitely. Research has confirmed the existence of a growing stimulant abuse problem in the United States and elsewhere. A study of Canadian middle and high school students revealed that 5.3% of the student population reported medically using stimulants within the previous year; 8.5% of the study’s participants reported non-medical (or off-label) use of stimulants (Poulin 2001).

The question for researchers then is not whether or not stimulant abuse occurs but how early it happens. This study hypothesizes that as caregivers feel increased pressure to see their children perform well at school, they will be more likely to accept a diagnosis for their at-risk children. It is believed this is especially true among middle- to upper-class families.

*Being a “Good Mother”*

In her writing on motherhood, Collett (2005:328) remarked, “[A] woman may become a mother by giving birth, but she truly takes on a mother identity by playing a socially defined,
publicly visible role. The distinction between mother as one who delivered a child and mother as one fulfilling a social role is an important one in this dissertation. It is hypothesized that the contemporary cultural role of motherhood, which is reified and maintained by mothers themselves and their peers, could affect diagnosis of ADHD; more specifically, it is believed that failure to meet established social obligations will increase risk of diagnosis.

By the early 20th century, both mothers and their children had been firmly placed under the gaze of biomedicine. Women’s bodies and motherhood-related issues like pregnancy, childbirth, breastfeeding, and postnatal care were increasingly medicalized (Kanieski 2009). With the rise of Freud’s theories of psychoanalysis, the relationships between mothers and their sons endured alarming scrutiny (Lakoff 2000). Both women’s bodies and the relationships they had formed were found wanting. To correct the errors of their ways, mothers turned to professionals for help and advice (Douglas and Michaels 2004). The movement toward scientific motherhood removed mothers from their position as mothering experts and placed Dr. Spock and others in their place.

Since the 1980s, mothers have been pushed to adopt an intensive mothering ideology or “new momism” as Douglas and Michaels (2004) have termed it. Under new momism, they (Douglas and Michaels 2004:4) write:

> no woman is truly complete or fulfilled unless she has kids, that women remain the best primary caretakers of children, and that to be a remotely decent mother, a woman has to devote her entire physical, psychological, emotional, and intellectual being, 24/7, to her children.

Intensive mothering ideology has been on the rise since women began entering the workforce in droves after World War II. Such a view of motherhood forces women, especially working
women, to try to live up to an ideal that is never attainable—a Foucaultian example of how those who try to resist cultural hegemony will be regarded as “failures” (Johnston and Swanson 2006).

Based on a romanticized version of a past in which mothers were afforded the opportunity to focus their attention on their children (Kanieski 2009), intensive mothering ideology expects mothers to derive total fulfillment from children; that is, a happy child equals a happy mother (Swanson and Johnston 2003). Under this theory, the description of motherhood extends deeper, however. Demographically speaking, the ideal mother is expected to be White, at least middle class, educated, married, and non-working (Harborne, Wolpert and Clare 2003). This image of “good motherhood” has been continuously (but perhaps unconsciously) reified through the media who have highlighted deviant mothers (like Black “welfare queens”) and praised good ones (celebrity moms) (Douglas and Michaels 2004). What has resulted is that even though the majority of mothers now work, they are still forced to carry (in many cases, solely) the responsibility of socializing children and making them good and productive members of society (McKeever and Miller 2004). Who or what their children become is a direct result of what type of mothers women are. Put differently, instead of judging the actions of the child, the actions of parents—more appropriately, mothers—are scrutinized (Singh 2002).

It is little wonder then that the discourse of motherhood is often permeated by notions of blame. As Singh (2002:597) writes, “Modern American mothers are historically programmed to worry about their sons’ behaviors and to blame themselves when those behaviors do not meet normative standards of achievement and success.” Accountability for their children’s behaviors is imposed internally through self-blame and externally through reactions from others. Mothers in Jackson and Mannix’s 2004 article, for example, specifically cite health professionals and those closest to them (friends and family) as blaming them for their children’s conditions. The
mothers are either not doing enough in some areas or doing too much in others. In a study comparing women’s views of motherhood by work status, Johnston and Swanson (2006) found that it did not matter what a woman’s work status was; mothers felt blame in some form or fashion across the board. While at-home mothers suggested that they were good mothers because they were always there for their children, they felt guilty for having a short temper with their children and struggled with feelings related to isolation and self-sacrifice. Mothers who worked full-time jobs outside the home believed they were able to give good quality time to their children and empower them as individuals; still, they were plagued by guilt for not having more time with them and for having to let other things like housework go to be able to spend time with them.

The case of mother blame is further compounded when the child has a disability, especially so-called “invisible” disabilities that are marked by social, emotional or behavioral problems and are not as easily identifiable as physical disabilities, such as autism or ADHD. Mothers of children with ADHD are held responsible for their children’s “shortcomings” by others and most especially by fellow mothers (Singh 2004). One mother in Bennett’s (2007) study of parents of children with invisible disabilities described how she felt like an “alien,” unlike any of the other mothers, and under constant surveillance by them because of her child’s condition. One study found that caregivers of children who did not use psychotropic medications (a mainstay in ADHD treatment) viewed the medications more negatively than parents whose children used them. Additionally, parents of children without these prescriptions were more likely to attribute ADHD causation to poor parenting than to neurological dysfunction (Stracuzzi 2005). Research on mother blame by other mothers is mixed, however. One study found that although mothers of ADHD children reported receiving significant external criticism,
attitudes toward ADHD among mothers of children with and without the disorder tended to be similar. This was true despite the fact that mothers with ADHD children thought they would be viewed more negatively by mothers whose children were not affected by the disorder (Norvilitis, Scime and Lee 2002).

Whether “real” or perceived, the stigma mothers of children with ADHD face can have a profound impact on their lives. Mothers raising ADHD children see the disorder as stressful, challenging, and even “traumatic” to their lives (Bennett 2007:104). With ADHD, intensive mothering and scientific motherhood collide. They are blamed for failing to be “good” mothers, which causes psychopathology in their children. Consequently, mothers must rely on professionals and para-professionals for resolution. Teachers, who have neither the power to diagnose nor to treat ADHD, are often seen as the gatekeepers of diagnosis and push for behavioral assessments with health professionals, who are seen as gatekeepers of treatment (Malacrida 2004, Rafalovich 2005). If a mother denies there is a problem or shows resistance in the process, her credibility is further diminished and she is said to lack insight into her children’s “true” problems. Thus, mothers may be pressed by teachers to treat the disorder in ways they may not have originally approved (Blum 2007).

After a disability is diagnosed, a mother can reclaim status and credibility by modifying the intensive mothering ideology to fit with her child’s needs. In the case of ADHD, the mother must selflessly and wholly throw herself into advocacy on behalf of her child. While teachers and doctors often vie for authority over diagnosis, Blum (2007) suggests that parents are often distressed by the fact that neither system will take responsibility for future treatment. It is seen as a “medical” problem in the educational sphere or an “educational” problem in the medical sphere. To rectify this problem, mothers must work closely with schools and teachers to secure
additional resources—even if it means threatening or pursuing litigation (Blum 2007, Peters and Jackson 2009).

The previous paragraphs have attempted to demonstrate that mothers have been historically discredited in their roles and that correcting their perceived faults requires intervention from trained medical professionals (many of whom are not mothers or even women). It is hypothesized here that this stigma extends beyond what Goffman (1986) called “courtesy stigma,” stigma extended to people associated with a stigmatized individual; instead, the stigma of mothers is something that they have earned themselves for failing to meet their social obligations. This research project attempts to show whether or not a model of parent blame exists among caregivers with and without ADHD children and teachers. It is hypothesized that a model of ADHD based on parent blame (influenced by intensive mothering ideology) will affect the diagnosis process.

**Conclusions**

ADHD has long been considered a biological disorder. While not necessarily untrue, the over-simplicity of such a statement does little to deepen the knowledge about and belief and practice related to ADHD. To more fully understand the disorder, a biocultural theoretical orientation has been adopted here. The ultimate goal of a biocultural approach is to view humans as holistic organisms who cannot escape the constraints of their biological functioning any more than they can avoid the impact the cultural world has on their bodies.

As with any theoretical orientation, a biocultural approach influences the questions asked and the answers received. This chapter has joined bodies of research related to family ecology, shared meaning, and critical anthropology to underscore the importance of a biocultural
approach to ADHD studies. ADHD has been a topic of considerable interest in many academic fields. While there has been some research done by anthropologists (much of which is discussed here), there is still much to be learned from anthropological explorations of the disorder.

Anthropologists and psychiatrists have long struggled with balancing the etic and the emic, of constructing generalizable and reliable statements from their research and of giving individual voices to whom they speak. While often vilified, variability, especially in the field of psychiatry, is not something to be discounted. It is this variability that can aid in refining the existing notions of who is at risk for developing disorders like ADHD. Several variables, including caregiver emotional stress, financial stress, performance pressure, and adherence to a model of appropriate motherhood, were hypothesized to affect symptom ascription and disorder diagnosis in young children.

ADHD is one of the most pervasive childhood disorders, and the consequences related to diagnosis can be severe and result in a “dented quality of life” for its sufferers (Al-Sharbaty et al. 2008). Understanding more about the disorder, about who it affects and why, is not only interesting but important for the future. Based in biocultural theory, this study attempts to expand and refine what is known about ADHD.
Chapter 3: The Biology and Social Context of ADHD

In 1902, physician George Still presented a series of lectures describing an illness in which he hypothesized children lacked inhibitory volition. Still’s description is credited as being the earliest account of ADHD, but his lasting contribution has been the broader connection he forged between biological dysfunction and behavior disorders, a view that has dominated the research landscape for more than a century. Contemporary support for the biological basis of ADHD is widely supported by leaders in the field (Barkley 1990, Biederman 2005, Faraone et al. 2005) as well as the media (Searight and McLaren 1998) and organizations designed to serve those with ADHD, such as CHADD (Children and Adults with Attention Deficit/Hyperactivity Disorder, CHADD 2008).

Still’s explanations were not left unchallenged, however. By the 1940s a competing view suggested that environment played a critical role in the development of children’s symptoms. Researchers who began placing ADHD in social context increasingly viewed ADHD as a cultural construction (Diller 1998, Jacobson 2002, Searight and McLaren 1998). Factors within the microsocial environment, upon which macrosocial forces act, became the focus for research.

For more than a century, ADHD has had a long and contested history within academia. This chapter explores both sides of the nature-nurture divide established in the early years of ADHD research. The first half is dedicated to reviewing what is known about the biology of ADHD. In the second half, a closer examination of ADHD as a product of a particular sociocultural history is explored.
The Biology of ADHD

This section examines several facets of knowledge concerning ADHD. First, research on ADHD’s etiology is discussed. Then its symptoms, types, and diagnostic criteria are described. ADHD risk is not evenly distributed among all segments of the population, and differential risk is explored further. Finally, ADHD and its tendency toward co-morbidity with other disorders is examined.

ADHD’s Etiology

The etiology of ADHD is complex and unknown at the present time (Diller 1996, Kutcher et al. 2004, Furman 2008), but research has emphasized the genetic underpinnings of the disorder (see Biederman 2005, Faraone and Biederman 1998, and Faraone et al 2005 for reviews). Although the exact mechanism by which ADHD develops and causes dysfunction in the body has proved elusive, two major hypotheses have been presented to explain ADHD development: the disorder is caused by disrupted catecholamine activity or is associated with frontal lobe dysfunction that impacts executive function.

Several studies have implicated catecholamine activity in the development of ADHD-related behaviors. Dopamine activity, for example, has been linked to learning (Arias-Carrión and Poppel 2007), memory (Kandel 2001, Vallone, Picetti, and Borrelli 2000), motivational behavior (Vallone, Picetti, and Borrelli 2000), and attention (Posner and Raichle 1994, Swanson et al. 2000). While ADHD impairs most if not all of these domains, the interaction between dopamine function and ADHD is unclear. Some researchers argue that there may be under- or over-regulation of dopamine uptake (Swanson et al. 2000) while others suggest that the cycle of overproduction and subsequent destruction of synaptic receptors and connectors, including dopamine receptors, is most important in the development of ADHD (Andersen and Teicher
Like dopamine, noradrenaline (also known as norepinephrine) has been related to learning, memory, and attention (Barr et al. 2002, Biederman and Spencer 1999) as well as vigilance and alertness (Biederman and Spencer 1999). Studies on non-human subjects have shown that suppressed activity of the noradrenergic system increases distractibility (Barr et al. 2002). In a paper that reviewed more than 40 genes believed to be related to ADHD, Comings et al. (2000) reported that noradrenaline genes were more important to understanding ADHD than were dopamine or serotonin genes. Research has targeted certain noradrenergic receptors and the noradrenaline transporter gene that, like the dopamine transporter gene, is blocked by treatment with stimulants as underlying factors in the development of ADHD (see Faraone et al. 2005 for a brief review). While conclusive genetic evidence does not exist, continued study on these systems may prove fruitful because maintaining levels of both noradrenaline and dopamine within a certain range are believed to be necessary for optimal neurological functioning (Arnstem et al 1999).

Recent studies designed to understand ADHD’s etiology have shifted away from examining catecholamine levels to studying lesions in the frontal lobe that may disrupt executive function. This shift mirrors a definitional change for ADHD that has come to include notions of impulsivity and inhibition—prompting one prominent researcher to suggest rechristening ADHD as Executive Function Deficit Disorder (Barkley 2009, personal communication). Executive function serves as an umbrella term for many areas of brain function including working memory, inhibition, and planning (Boonstra et al. 2005). It also encompasses an individual’s ability to
control impulses; in other words, it controls one’s ability to choose and complete “context-specific action selection, especially in the face of strongly competing, but context-inappropriate, responses” (Pennington and Ozonoff 1996:55). According to Barkley and Murphy (2011), self-regulation is practically synonymous with executive function.

In a study of adults with ADHD, Barkley and Murphy (2011) found that as ADHD severity increased, impairment across five domains of executive function—self-management to time, self-organization and problem solving, self-discipline, self-motivation, and self-activation/concentration—increased. Pennington and Ozonoff’s (1996) meta-analysis of 18 studies reported similar results. They found that those with ADHD did significantly worse on measures of executive function (across 60 different measures) in all but three of the studies (and on 67% of individual measures). Differences were most apparent in domains like motor inhibition.

**Symptoms, Types, and Diagnosis**

Because there is no single diagnostic test for ADHD (Furman 2008), the American Psychiatric Association has consistently used symptom counts to define who does or does not suffer from the disorder. All behaviors included in the heading of ADHD are generally associated with childhood; they are seen as problematic because they extend beyond “normal” or typical behaviors to those that are inappropriate and socially unacceptable. Barkley (2003:77, emphasis mine) remarks that ADHD diagnosis should occur when children exhibit behaviors that are “highly deviant for their developmental level.” Symptoms of ADHD are broken into sub-areas: inattention, hyperactivity, and impulsivity (Tables 3.1, 3.2, and 3.3, respectively; APA 2000).
Table 3.1: DSM-IV symptoms of inattention

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often does not give close attention to details or makes careless mistakes in schoolwork, work, or other activities</td>
</tr>
<tr>
<td>Often has trouble keeping attention on tasks or activities.</td>
</tr>
<tr>
<td>Often does not seem to listen when spoken to directly.</td>
</tr>
<tr>
<td>Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the work place (not due to oppositional behavior or failure to understand instructions).</td>
</tr>
<tr>
<td>Often has trouble organizing activities</td>
</tr>
<tr>
<td>Often avoids, dislikes, or doesn’t want to do things that take a lot of mental effort for a long period of time (such as schoolwork or homework).</td>
</tr>
<tr>
<td>Often loses things needed for tasks and activities (e.g., toys, school assignments, pencils, books, or tools).</td>
</tr>
<tr>
<td>Is often easily distracted.</td>
</tr>
<tr>
<td>Is often forgetful in daily activities</td>
</tr>
</tbody>
</table>

Table 3.2: DSM-IV symptoms of hyperactivity

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often fidgets with hands or feet or squirms in seat when sitting still is expected.</td>
</tr>
<tr>
<td>Often gets up from seat when remaining in seat is expected.</td>
</tr>
<tr>
<td>Often excessively runs about or climbs when and where it is not appropriate (adolescents or adults may feel very restless).</td>
</tr>
<tr>
<td>Often has trouble playing or doing leisure activities quietly.</td>
</tr>
<tr>
<td>Is often “on the go” or often acts as if “driven by a motor.”</td>
</tr>
<tr>
<td>Often talks excessively.</td>
</tr>
</tbody>
</table>

Table 3.3: DSM-IV symptoms of impulsivity

<table>
<thead>
<tr>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Often blurts out answers before questions have been finished.</td>
</tr>
<tr>
<td>Often has trouble waiting one’s turn.</td>
</tr>
<tr>
<td>Often interrupts or intrudes on others (e.g., butts into conversations or games).</td>
</tr>
</tbody>
</table>

Three types of ADHD exist based on these sets of symptoms. These are AD/HD, Predominantly Inattentive Type (DSM-IV-TR code 314); AD/HD, Predominantly Hyperactive-Impulsive Type (DSM-IV-TR code 314.01); and AD/HD, Combined Type (DSM-IV-TR code 314.01). A final DSM-IV-TR code related to AD/HD, the 314.9 code for AD/HD Not Otherwise Specified, is reserved for children who exhibit enough of the symptoms to impair daily activities but too few for a full diagnosis.
Under DSM-IV criteria, to be diagnosed as ADHD, a child must:

1. Exhibit 6 symptoms from either Table 1 or Tables 2 and 3 combined for at least 6 months in order to receive a diagnosis of AD/HD, Predominantly Inattentive Type or AD/HD, Predominantly Hyperactive-Impulsive Type, respectively; for a diagnosis of AD/HD, Combined Type, a child must exhibit a combination of behaviors from both the Inattentive and Hyperactive-Impulsive Types.
2. Exhibit symptoms prior to the age of 7 and to the point that they caused impairment.
3. Have evidence suggesting that symptoms impaired activity in two or more settings (e.g. school and home).
4. Have evidence that the disorder caused “significant impairment in social, school, or work functioning.”
5. Have symptoms that are not better explained by or occur during problems with another mental or psychotic disorder.

The most problematic criterion for diagnosis is determining who is significantly impaired by the disorder. The list of symptoms used to classify children has been criticized for being poorly defined and relative (Rafalovich 2005). Every kindergartener, for example, fidgets to a degree, and no empirical range of childhood behavior, including fidgetiness, exists by which to gauge a child’s behavior.

Many of the other criteria have also been viewed as problematic. Symptom checklists and diagnosis thresholds may need to be adjusted by gender and age; gendered differences in symptom presentation (discussed further below) may mean that some go undiagnosed, and what counts as “normal” behavior for a 5 year old and an 18 year old can vary significantly (Barkley 2003). Also, the idea that ADHD symptoms must be present prior to the age of 7 is, according to some, “not justifiable on any historical, empirical, and pragmatic grounds” (Barkley 2003:80). Based on the last criterion alone, it is surprising that ADHD is as widespread a problem as it is in the United States. As mentioned in greater detail below, ADHD is comorbid with at least one other condition in most cases.
The classification system itself may pose a challenge for diagnosis because descriptions of ADHD can vary among professional organizations and federal agencies. For example, under the Social Security Administration’s Supplemental Security Income Program (SSI)—a federal program designed to meet the health needs of low-income and low-resource individuals—the child (aged 3 to 18) must exhibit marked inattention, marked impulsiveness, and marked hyperactivity; additionally, the child must exhibit marked (and documented) impairment in at least two of the following areas: age-appropriate cognitive/communicative function, social functioning, personal functioning, and “concentration, persistence, or pace” (SSA 2008). Based on these criteria, only the combined type of ADHD may qualify for SSI benefits.

Examining Differential Risk

Risk of developing ADHD is not shared equally among all individuals. Although ADHD as a diagnostic category has expanded to include adults, this section is exclusively focused on risk factors (specifically immutable risk factors) among children. These include family history, gender, and ethnicity.

The aforementioned studies suggest that there is an underlying genetic component to ADHD; perhaps not surprisingly then, risk is elevated among other children in families who already have a child diagnosed with ADHD. A review of 20 twin studies estimates that the heritability of ADHD is 0.77 (with a range from approximately 0.50 to more than 0.90, Biederman 2005). A child with ADHD is 4 to 5 times more likely to have family members with ADHD than children without the disorder (Biederman 2005, Faraone et al. 2005, Kutcher et al. 2004). Studies of heritability, however, notoriously underestimate the importance of the variance explained by gene-environment interactions and should be viewed cautiously (Graves 2001).
Boys have also been over-represented among those diagnosed with ADHD. A 2006 National Health Interview Survey places the prevalence of ADHD among boys more than double that found among girls—10.7% compared to 4.0% (Bloom and Cohen 2007). Differences in the manifestation of symptoms also exist. ADHD girls exhibit fewer symptoms of hyperactivity, inattention, and impulsivity than do ADHD boys (Gershon 2002). It has even been suggested that this difference between boys and girls is great enough that symptom cutoff scores used to make a diagnosis of ADHD (see above) should be adjusted for gender—that is, it should be lowered for girls (Barkley 2003). Gershon’s (2002) work suggests that ADHD girls suffered from greater mental impairments than boys while Biederman (2005) shows that girls are much less likely than boys to develop learning disorders. Girls also seem to suffer from fewer comorbid disorders than boys (except for anxiety disorders). The cause for the gendered differences in ADHD prevalence is unknown; it may be caused by under-diagnosis among girls (Gershon 2002) or a difference in density of dopamine receptors (Andersen and Teicher 2000); it may also be the result of rebelliousness among boys that exceeds societal norms (Timimi 2005).

The distribution of ADHD by ethnicity is widely variable. Most studies concerning ADHD are done on White males (Al-Sharbati et al. 2005), but no difference in prevalence has been found between Blacks and Whites in the United States (7.4 and 7.6%, respectively; Bloom and Cohen 2007). Curiously, despite similar ADHD prevalence in these two groups, Black parents had less knowledge about ADHD and received fewer educational materials than White parents (Bussing, Schoenberg and Perwein 1998). They were also more likely to attribute their children’s hyperactive behaviors to sugar consumption rather than as an outcome of having a disorder. In the United States, the prevalence of ADHD among those labeling themselves as Hispanic or Latino (5.1%) is lower than that found amount Whites and Blacks, but the
prevalence among Asians is lowest of all (1.5%, Bloom and Cohen 2007). Those who identify themselves with a mixed ethnic background, particularly of Black and White ancestry, are at a much higher risk for the development of ADHD than those of one ethnicity (20.7% prevalence of ADHD, Bloom and Cohen 2007).

**ADHD and Comorbidity**

Several disorders are also comorbid with ADHD, compounding the impact the disorder can have on a child’s life. Roughly 70% of children suffering from ADHD are believed to meet diagnostic criteria for other psychiatric disorders (Brown 2005). Comorbidity is so common among children with ADHD that it is classified as a “distinct clinical feature” of the disorder (Biederman 2005:1218). Brown (2005) estimates that ADHD co-occurs most often with oppositional defiant disorder (in 40% of children; see also Barkley 2003), anxiety disorder (34%), conduct disorder (14%), tic disorders, depression, and bipolar disorder (Waldman et al. 2001)—though figures tend to vary by type of ADHD present. Speech and language disorders as well as learning disabilities in areas like reading and spelling are also highly comorbid with ADHD (Lewis 2001, Stevenson 2001).

Perhaps most frightening for those suffering from ADHD is the risk of suffering from a “dented quality of life” (Al-Sharbati et al. 2005:264), including a greater risk of injuries and auto accidents, greater dependence on and abuse of alcohol and cigarettes, an increased likelihood of school failure or failure to graduate, greater chances of “falling out of the socially prescribed safety net” (Al-Sharbati et al. 2005:364), and a “diminished development of moral reasoning” (Barkley 2003:81) (but see also Williams and Taylor 2006). For those suffering from ADHD, the outcomes are rather grim; whether one outgrows the disorder or not, these differences in life outcomes are believed to persist (Barkley 2009: personal communication).
Summary

This section examined both what is known about the disorder and what needs to be learned from future research. Biomedicine has emphasized ADHD’s biological origins, the results of a brain dysfunction that has yet to be exactly identified. Because its etiology is unknown, no medical test can be given to determine whether or not a child has the disorder. Medical professionals then must rely on a behavioral symptom checklist for diagnosis. As mentioned above, this checklist presents its own problems from a lack of specificity to inconsistencies in criteria to meet diagnosis across organizations. Regardless of its origins and how it is measured, ADHD poses a serious concern for children, their parents, and their physicians. Recent estimates suggest that ADHD affects approximately 4.5 million children in the United States (Bloom and Cohen 2007); the impact the disorder can have on the lives of those diagnosed and their loved ones is staggering and often long-lasting.

The Social Context of ADHD

In his book Outliers, Gladwell (2008) shares several stories of individuals who, for varied reasons, find themselves set apart from the norm; statistically speaking, they fall in the tails of a normal curve. Somehow, they are different. By most accounts, the individuals he describes are identified by the public as being self-made, but Gladwell reminds us things are not always as they seem. He writes that, in order to get the full picture, one has to look beyond “the individual’s personal choices or actions in isolation” (2008:10-11). Instead he urges us to recognize “that the values of the world we inhabit and the people we surround ourselves with have a profound effect on who we are.” Gladwell traces the making of great hockey players, villains, and plane crashes; in doing so, he argues convincingly that outliers are those who are at
the right place at the right time and with the right attributes to move from the normal to the exceptional.

Like the outliers in Gladwell’s (2008) book, ADHD is an outlier in its own way. Although many argue that the disorder has been recognized for at least a century, ADHD really burst onto the scene under the guise of hyperactivity in the 1970s and increasingly gained momentum through the 1990s and into the 21st century. Through media exposure, widespread diagnosis, and popular discourse, ADHD has maintained its popularity. The second portion of this chapter is dedicated to explaining why ADHD has achieved the “celebrity status” it enjoys today (Graham 2008:85).

The Workforce, Compulsory Education, and Changes in American Families

The modern family ideal—made up of a mother, father, and approximately two children—is neither the contemporary norm nor the norm for much of American history. In the early 1800s, economic growth allowed for the expansion of family types ranging from working class families who worked cooperatively within the family unit to produce income to a small but growing group of middle class families (the current prototype) which tended to have a single, typically male, breadwinner (Mintz 2001). During the 19th century, cooperative family groups were common because they served as a protection against low wages common in urban areas, high mortality rates to which both children and parents succumbed, and crop failures in rural settings (Brancaccio 2000). Children were seen as a viable source of income, and parents were as dependent upon children for economic security as the reverse is true today (Brancaccio 2000).

Likewise, the picture of American education bore little resemblance to the structured setting in which contemporary school children find themselves 35 hours a week for nine months a year. There were educational opportunities, which Katz (1976) describes in multitude: “dame
schools, academies, evening schools, Latin grammar schools, English grammar schools, pauper
schools, and colleges” in addition to those run by religious or other charitable groups. The actual
education experience an American child received, however, was highly variable; some enjoyed
private tutoring while others attended schoolhouses that suffered from overcrowding,
inexperienced teachers (who were part of a newly-emerging profession following the Civil War,
Richardson 1980), and seasonal disruptions in teaching and learning (Brancaccio 2000). Public
education, if it existed in one’s state, was both disorganized and patchy (Katz 1976). More
importantly, it was typically at the parents’ discretion.

By the 1920s, a different picture of American life emerged. World War I had subsided,
and many Americans were riding the wave of increased economic success. The Bureau of Labor
Statistics (VanGiezen and Schwenk 2001) reports that, between 1913 and 1920, hourly wages for
union workers nearly doubled while hours worked per week remained the same. The ability for
one person (more specifically, men who were courted for jobs after the war) to provide enough
income to support a family was no longer reserved for the middle class but was increasingly
adopted by the majority of citizens (Mintz 2001).

Pushing men into the workforce naturally pushed other groups, like children, out.
Growing concern over working conditions and the overall treatment of children led to a
heightened awareness of children’s rights and catapulted child labor into the political arena.
Some states (e.g. Massachusetts) began pushing for restrictions on child labor by the mid-1800s,
but it was not until the turn of the 20th century that organizations like the National Child Labor
Committee were created to reform and improve current child labor legislation. Passage of the
Keating-Owen Bill of 1916, one of the group’s successes, made it illegal to sell products across
state lines if the factory, shop, mine, or company employed children under an established age or
over the maximum work hours per day (or week). Although the bill was struck down just two years later, repeated attempts were made to regulate child labor over the next two decades. Supporters of child labor reform were finally successful with the passage of the Fair Labor Standards Act in 1938.

Where did the children go? As they were pushed out of factories and mines, children, it seems, were increasingly redirected into schools. Although laws enacting compulsory education existed during the colonial period, modern compulsory school attendance laws were only adopted between the mid-19th and through the first quarter of the 20th century. More than half of the United States had passed school attendance legislation by 1890, but nine southern states did not do so until after 1900 (Katz 1976). Richardson (1980) suggests that the region’s ties to agriculture may partially explain the delayed efforts to adopt compulsory school attendance laws. *The Kallikaks, George Still, and Learning How to Learn*

Those who watched over Deborah characterized her as a graceful girl who was a gifted gardener, enjoyed sewing, and told good stories. While she was good at numbers in school, Deborah was seen to be restless and let her mind wander frequently. One teacher wrote, “She could learn more in school if she would pay attention, but her mind seems away off from the subject in discussion.” Today Deborah could easily be classified as a child with ADHD. Before the label of ADHD and its standard regiment of stimulant treatments existed, however, she was believed to be suffering from feeblemindedness, a disorder that knew no remedy. She was a patient at the Training School at Vineland where Dr. Henry Goddard, a classic eugenicist, studied her and other members of her now infamous family, the Kallikaks (Goddard 1912).

The early 20th century was the golden era of the eugenics movement in the United States. The principal goal of eugenics was to improve the quality of the gene pool—by promoting the
more desirable members of society to reproduce, preventing the undesirables from reproducing, or, at its extreme, eliminating the least desirable members of society (cf. Laughlin’s 1922 draft of a law for sterilization). A great number of people were considered among the “socially inadequate,” those who should not be allowed to reproduce (Laughlin 1922:446-447): these were the:

(1) Feeble-minded; (2) Insane, (including the psychopathic); (3) Criminalistic (including the delinquent and wayward); (4) Epileptic; (5) Inebriate (including drug-habitués); (6) Diseased (including the tuberculous, the syphilitic, the leprous, and others with chronic, infectious and legally segregable diseases); (7) Blind (including those with seriously impaired vision); (8) Deaf (including those with seriously impaired hearing); (9) Deformed (including the crippled); and (10) Dependent (including orphans, ne'er-do-wells, the homeless, tramps and paupers).

What is clear from the list above is that behavioral problems were increasingly included in lists of supposed organic dysfunction. In his work documenting the Kallikak family, among which Deborah’s case is but one example, Goddard’s (1912) singular goal is to disprove the role of environmental influence and prove the heritability of disorders like these.

When researchers of ADHD trace its history, most begin at the turn of the 20th century when Goddard and other eugenicists were most active. Their story often begins with George Still, a physician working with children at King’s College Hospital. In a series of lectures presented to the Royal College of Physicians of London, Still (1902) described a disorder of moral control among his child patients. Although one subtype of Still’s unnamed disorder was hypothesized to be caused by a lack of inhibitory volition, an idea enjoying revival in contemporary literature (cf. Barkley 2006), the widely recognized precursor of ADHD is quite dissimilar from the present diagnostic category. The symptoms associated with Still’s (1902:1009) disorder include “passionateness, spitefulness-cruelty; jealousy; lawlessness;
dishonesty; wanton mischievousness-destructiveness; shameless-immodesty; sexual immorality; and viciousness.”

In his papers, Still (1902) grapples with how to classify children who lack moral control but did not fit the clinical definitions of imbecility (a mild form of mental incapacity; feeblemindedness seems to be a more inclusive term) or could not as yet be classified as criminals. Rafalovich (2001:98) states:

Imbecility was part of the medical nomenclature that enabled medical science to begin inquiries into the mental health of persons who were not drastically maldeveloped or mentally handicapped. People could become suspected of being imbeciles from a failure to meet the demands of conventional institutions. Still’s work was an interesting permutation of the imbecility discourse because he wished to apply the term to the unconventional behavior of children.

The most obvious place for children to fail at meeting the institutional demands placed on them was at school. Schools were already transforming in the early 20th century as a response to the eugenics movement. They were increasingly seen as a way to “moralize the masses” (Brancaccio 2001:167) and an opportunity to rectify the deficiencies found in homes and in society. Katz (1976:23-24) argues the influx of outsiders—many of them viewed as morally or intellectually deficient—helped solidify the role of schools as “agents of social control and assimilation” and allowed them to produce the “large numbers of punctual, hardworking, and obedient workers” it required.

Not all children responded well to this system of education, however. Throughout the 19th century, simultaneous instruction of children—where children of equal “capacity” are grouped together in a single classroom with one teacher who teaches the same lesson to all (Azarias 1896:209)—was adopted in classrooms of up to 400 students (Johnson 1994). Disruptions in classrooms of this size were dangerous to the learning process, and administrators soon realized that one of their biggest problems was dealing with problem children (Brancaccio
After Still’s (1902) publications, children exhibiting problematic behaviors in the classroom could increasingly be assigned to classes for the borderline and backward, defined as including those “children who are generically (all-round) backward intellectually, who are on the borderline of mental deficiency but not clearly mentally deficient, and who are of doubtful diagnosis from the standpoint of intellectual and scholastic competency” (Wallin 1931:441, emphasis added). Because of the limitations on administrative resources to conduct full evaluations, students could be placed in a class for the borderline and backward without the physical or psychological examinations or collection of personal and family histories needed to classify children in the more severe “mentally deficient” category (Wallin 1931). Although these classrooms were not intended to be used as a “penalty for failure to do acceptable work or for misbehavior” (Wallin 1931:444), the possibility for their misuse had been established.

Changes in the Field of Psychiatry

In 1909, the National Committee for Mental Hygiene was founded in New York. Because mental illness was seen as “the most serious social evil of the time” (Cohen 1983), the committee’s goal was to place emphasis on prevention of mental illness, an idea adopted from the growing field of public health. The definition of mental illness given by the committee differed considerably from the organic dysfunction model presented by Still (1902); it viewed mental illness as a personality disorder and childhood as personality’s prime development period (Cohen 1983).

Around the same time, Sigmund Freud’s views of hysteria and its treatment through psychoanalysis were increasing in popularity. Leaders in American child psychiatry were hesitant to adopt Freud’s linkage of childhood sexual malfunctioning to psychopathological etiology, but they believed “in the central role of life history in the explanation of mental illness”
(Gay 1989, Lakoff 2000:154). Thus, psychoanalysis via intense, individual case studies became the method by which *acquired* problems of personality were examined and treated. These case studies tended to focus on mother-child relationships and the overprotective nature of the mother as cause for psychopathology (Lakoff 2000). The scrutiny of mother-child relationships eventually trickled into popular media as well. Singh’s (2002) analysis of popular news articles in two women’s magazines and a newspaper between 1945 and 1965 reveals that articles concerning child behavior are primarily directed at mothers and regard the behaviors of their sons. Again, boys are “impeded” by mothers and their “comparatively poor childrearing instincts” (Singh 2002:582). Research suggests that personal and social mother blame for childhood ADHD persists today but may be absolved—at least in part—by adopting an etiological framework based in biology, an idea discussed in more detail below (Singh 2004).

After decades of reigning as psychiatry’s treatment of choice, psychoanalysis began to lose its power by the 1970s. Adherents to its methods stressed that there was no one-size-fits-all-treatment for ADHD or any other disorder and that treatment had to be done on an individual basis, and critics pointed out that such techniques were expensive, impractical, and unproven. Opponents also viewed the approach as inappropriate for those it was trying to help (asking hyperactive children to engage in long conversations in which they were to remain still and focused; Smith 2008).

In its place came biological psychiatry that transformed the *acquired* personalities of psychoanalysis into *inherited* temperaments (Lakoff 2000). Behavioral disorder as a biological fact has been promoted by researchers for more than a century, beginning at the latest with Still in 1902, but advancements in science in 20th century provided even more compelling evidence for its adoption. DNA research and the evolutionary synthesis fueled an alternative worldview
that posited people were who they were because of invisible packets of information known as genes, that genetic information was passed from generation to generation over time, and that changes in information are driven by natural selection. The goal of life was, in short, to adapt to one’s environment.

For three decades, Chess and colleagues had attempted to push the biological research agenda in child psychiatry by initiating “perhaps the first systematic applications in child psychiatry of Dobzhansky’s formulation that ‘what is biologically inherited are… the ways in which the body reacts to the environment’” (Lakoff 2000:156). By the mid-1970s, the adoption and domination of biological models in child psychiatry was imminent. Once the Journal of American Academy of Child Psychiatry shifted hands to a biologically-minded editor, the message to the profession was clear (Lakoff 2000). If child psychiatry is grounded in biology, it is both replicable and scientific. If child psychiatry is replicable, it cannot use individual case studies like those of the psychoanalysts. And, most importantly, if it is scientific, it is also legitimate (Lakoff 2000). Lakoff (2000) notes that the first article published under the new editor dealt with the genetic factors underlying hyperactivity (Cantwell 1976).

Adoption of a biological understanding of behavioral disorders in general and ADHD in particular paved the way for the widespread adoption of stimulants as the preferred method of treatment. As early as 1937, the amphetamine known as Benzedrine was being used to treat children for severe headaches after being given spinal taps (Mayes and Rafalovich 2005). Regardless of their disorder, children seemed to be more attentive and interested in school work (Bradley 1937). Bradley (1937) himself was baffled that a stimulant could have such a calming effect on children. He encouraged the use of stimulants but urged physicians to be cautious in prescription and diligent in attempting to understand underlying etiology.
Reflecting a wider expansion of pharmacotherapy, especially for children (Mayes and Rafalovich 2007), Ritalin was created in the 1950s by the Geigy pharmaceutical company. Marketing for psychiatric drugs rose aggressively during the 1960s and 1970s as confidence in drugs like Ritalin increased (Smith 2008). They were easy to use and, for many, provided a decided advantage over psychotherapy in terms of time and money invested (Smith 2008). By the 1970s, stimulants became the treatment of choice for those diagnosed with ADHD (Searight and McLaren 1998).

The dramatic rise in pharmacoptherapy in the United States during the 1990s is believed to be linked to the revision and release of the Diagnostic and Statistical Manual, the DSM-III, in 1980. Instead of emphasizing etiology, the American Psychiatry Association DSM steering committee appointed for the DSM-III decided to abandon the case study, the goal of which was to understand etiology, in favor of descriptive diagnostic criteria (Lakoff 2000). It was seen as “a scientific coming of age for psychiatry” (Smith 2008:553) where psychiatry as a discipline was legitimated as were the disorders it studied. In the transition, ADHD also underwent an identity change. The DSM-II category of hyperactivity was rechristened ADD (attention-deficit disorder, the immediate precursor to ADHD). The DSM-III was also a move toward standardization of diagnosis within psychiatry (Lakoff 2000, Smith 2008). Its tools of choice were easily completed and easily replicated checklists. Once a child met criteria for diagnosis, treatment was possible. The ideal treatment for ADHD remained unchanged; pharmacotherapy under a system of managed care was prescribed and increasingly so (Graham 2008). Methylphenidate (Ritalin’s generic name), for example, has enjoyed strong sales since its creation (Smith 2008), but its real rise in popularity did not occur until the 1990s. By then, the United States had multiplied methylphenidate production by six in a mere five years; nearly all
of it was for children with ADHD (Searight and McLaren 1998). Adderall, which came to market in the United States in 1996, rose from 1.3 million prescriptions to almost 6 million in just three years (Graham 2008). The rise has been so swift lately that there is a shortage of medication. While the “official cause” of the drug shortage is linked to the limits the Drug Enforcement Agency sets for their manufacture and distribution each year, women between the ages of 26 and 39, many of whom are mothers, are believed to contribute considerably to the problem. Between 2002 and 2010, prescriptions for Adderall in this group have increased by 750% (Ellison 2012). The effects of the medication shortage have reverberated through Lafayette, Louisiana, as well; the medication shortage made the front page of the local Sunday newspaper recently (McElfresh 2012).

**ADHD and the Law**

Psychiatry’s move to a biological orientation not only legitimated the discipline but also legitimated the disorder for students and their families. Once the disorder was recognized by the government, rights and resources could be made available. The first federal law under which children with ADHD are protected is Section 504 of the Vocational Rehabilitation Act of 1973, which prohibits discrimination of students with disabilities and which makes available non-specific services to keep the disabled child in the regular classroom. The second law protecting children with ADHD is the Individuals with Disabilities Education Act, or IDEA. The IDEA was passed in 1990 and expands the services available to disabled children, including the establishment of individualized education programs (or IEPs), who fall under one of the recognized categories of disabilities; ADHD is one of these disabilities despite great controversy leading up to the law’s passage (Diller 1998). The IDEA is stricter in its eligibility—therefore, all children who qualify under the IDEA also qualify under Section 504 although the reverse is
not always true—but provides more benefits to those who are disabled and seems to be the “more powerful of the two” (Diller 1998:148).

_ADHD as Outlier_

Like Gladwell’s outliers, ADHD has moved beyond the norm and settled itself comfortably as a “celebrity” among child psychiatric disorders. ADHD has existed in some form for more than a century, but explaining the disorder’s rise to prominence in the 1990s required situating ADHD in both time and space. It has necessarily included the stories of how family life, education, the fields of science and psychiatry, pharmaceuticals, and law each changed over the course of the 19th and 20th centuries, how each facet of life reacted to changes in the other, and how the confluence of factors provided ADHD the perfect time and place to prosper. No doubt this list could be expanded to include a great number of issues. For example, Searight and McLaren (1998) mention ADHD in conjunction with managed health care; Rafalovich (2001) describes how the _encephalitis lethargica_ outbreak toward the end of World War I cemented ADHD’s place as a biological disorder; Graham (2008) makes more explicit claims about schools as gateways of treatment (despite lack of medical qualifications among teachers) and perhaps social control into the present; and Smith (2008) makes even deeper connections between the history of psychiatry and ADHD and Kennedy’s stance on mental health in the 1960s.

What emerges from the ever-growing list is a disorder that has been touched by—but, more importantly, has touched—many facets of life. Flexibility has been the disorder’s greatest strength, its ability to mold itself to the world in which it exists its means of survival over time. Lakoff (2000:154) in describing how he approached his description of ADHD wrote:

> Given the unsettled status of the syndrome, “discovery” is not the appropriate term to describe the emergence of attention deficit. Rather, to understand the
vitality of the disorder in the decade of the 1990s, one must look at how shifting notions of individual rights, social risk, and personality became entangled in an ecology of knowledge in which the disorder could thrive.

ADHD, a true outlier in the world of psychiatric disorders, has come of age.
Chapter 4: The Research Site

In Evangeline, Henry Wadsworth Longfellow tells the story—supposedly based on fact—of two lovers who not only lost their homeland during the Acadian exile from Nova Scotia but also each other. For years, Evangeline Bellefontaine searches for her love Gabriel Lajeunesse. The two are finally reunited in their old age for but a few moments before he dies in her arms.

Although it is 300 years old, the story of Evangeline and Gabriel remains iconic in contemporary Cajun culture. For many, it is a poignant reminder of the tragedy Cajuns have overcome. Reminders of the past are everywhere. Most notably is a reproduction of an early Acadian village known as Vermilionville that sits just a few miles away from the original 18th century settlement. Annually, the people spend a week in celebration of Festival Acadiens, which recognizes the language, music, and food of the area’s earliest inhabitants.

Cajuns may have one foot in the past, but they have also seemed to settle comfortably in their new homeland of Acadiana, the name designated for a 22-parish region in southwest Louisiana where the Cajun population is centered, and flourished. With its capital in Lafayette, Cajun culture has become something of a novelty in recent decades, a tool to be used to sell food and music or inspire university mascots and television shows.

At first glance, the shift from Acadian exile to Cajun superstar seems to have happened seamlessly and effortlessly. This portrayal hides both the complex history and the true diversity of the state, the region, and the parish in which this research takes place. In the following pages, a brief description of Louisiana is outlined. First, the state’s geography is described. Because of
the complexity and importance of ethnic identity in the South, in Louisiana, and in Lafayette, special attention is paid to the groups who have occupied Louisiana over time: Native Americans; those of African descent; Europeans, specifically the French; and the Acadians. Then, a history of the city of Lafayette is traced. Because Lafayette is intimately connected to Cajuns and their lifeways, special attention is paid to the creation and negotiation of their ethnic identity over time.

**Geography**

Louisiana has been a continuous home to human groups since the first Native Americans began arriving around 15,000 years ago. When these groups arrived, the Louisiana they encountered was far different from the one that exists presently. During the last Ice Age, the Gulf of Mexico receded to expose vast amounts of riverbed extending the coastline. The state was covered in grasslands that served as an ideal home for the megafauna of that time (Kniffen, Gregory, and Stokes 1987).

After the Ice Age (between 6,000 and 2,000 B.C.), portions of the former coastline were reclaimed by the Gulf of Mexico, and Louisiana began to look much as it does today. In some areas, grasslands were steadily replaced by woodlands (Rees 2003). Rising water levels left the entire state at relatively low elevation levels (the highest point being only 535 feet and New Orleans below sea level), a source of much anxiety for its inhabitants. Many rivers, including the Mississippi and Red, and their corresponding drainage systems began to take on the winding and web-like shapes associated with their current configurations (Kniffen, Gregory, and Stokes 1987). This intricate river system dramatically altered the landscape of Louisiana and resulted in the iconic geography of the lower half of the state.
Although Louisiana is often associated with swamps and marshlands, the geography of the state, which covers some 49,000 square miles, is actually quite diverse. These widely varied geographical areas include the uplands of the northwest, the coastal marshes, delta and alluvial plains formed from the state’s large network of rivers, and prairies in southwestern Louisiana (Rees 2010). Lafayette Parish itself is considered a land of prairies, but it is within 50 miles of three other geographical areas (the coastal marshlands, floodplains, and hills and terraces; Kniffen, Gregory, and Stokes 1987).

The Vermilion River, which bisects Lafayette Parish and intersects with Bayou Teche just northwest of the parish, has left the area in and around Lafayette so fertile that Longfellow is said to have dubbed the region the “Eden of Louisiana” (Griffin 1974:4). Several agricultural products are grown there. Cotton, rice, sugarcane, corn, and sweet potatoes are all common. Fruit, especially citrus, and pecan trees are also scattered throughout the region (and frequently appear in backyards). The fertile lands have also made Lafayette a historically successful place to raise cattle (Griffin 1974).

The success of agriculture and animal husbandry can be attributed just as much to a change in climate as to the fertile grounds of the region. In addition to creating and altering existing waterways, the Ice Age shifted the climate to the contemporary humid subtropical one. This climate, characterized by drier winters and wet, steamy springs and summers, has extended the growing season to 230 days per year on average in the northern part of the state and to 300 or more per year in the southern portion (Kniffen, Gregory, and Stokes 1987).
**Native American Presence**

The presence of Clovis points suggests that Native American occupation in Louisiana began as early as 10,000 to 12,000 years B.C. And when Europeans arrived in the 16th century as explorers and began settling in the 17th century, several historical groups of Native Americans were there to greet them. The Houma, for example, met Europeans when they arrived in 1699 (Duthu 1997). Native Americans living closest to European settlement were often heavily incorporated into life in the “French” frontier. This generally occurred through trade, sexual relationships, and slavery (though, relative to Africans, very few Native Americans became slaves; Webre 1984).

Unlike the Houma, the Attakapas (variously spelled Atakapa, Atacapa, and Attakapa; see Kniffen 1971), who made their home in southwestern Louisiana where this research takes place, have been described as an “almost invisible people” both to early Europeans and to later settlers of Louisiana (Kniffen 1987:46). The Attakapas are believed to have lived along the riverbanks where they relied heavily on the resources the rivers provided (Post 1962). Because of their livelihood, they lived an isolated existence and rarely made contact with Europeans.

Beyond these scant insights, reconstructing the group’s lifeways has proved challenging for researchers; unfortunately, the state of research on the Attakapas is unlikely to change. Around 1700, the group is believed to have included somewhere between 2,500 and 3,500 members (Kniffen, Gregory, and Stokes 1987; Post 1962). Just two short centuries later, the Attakapas, like many of the Native American tribes in Louisiana, had been decimated. Researchers speculated that only a handful of “mixed bloods”—those at least partially descended from the Attakapas—still lived around the turn of the 20th century (Swanton 1907:285; Kniffen 1987). What is clear is that the original inhabitants of southwestern Louisiana were no more.
Swanton (1907:285) writes, “Perhaps no more complete extermination has overtaken the American Indians anywhere than in the area just considered.”

This section has briefly traced the presence of Native Americans in Louisiana. Unfortunately, it is a story similar to many that are told about early contact between Europeans and native groups. Contact proved to have dramatic consequences for all Native Americans living in Louisiana. The Attakapas, seemingly hidden among the bayous, may have escaped some of the worst results of early European contact. Nevertheless, their fate—as a group now almost or completely extinct—is among the worst of Native American peoples in Louisiana.

**Africans in Louisiana**

The separation between “whiteness” and “blackness” has been rigidly defined and actively policed throughout the South, but defining these groups has been less clear in Louisiana. While the rest of the South has often operated on a color-based caste system with Whites on top and Blacks on bottom, Louisiana has tended to use a class system where people with the Whitest skin form the top, the darkest skin belongs on bottom, and those with skin somewhere in between fall right in the middle. The role of people of African descent, both slave and free, in the history of Louisiana and their place in the development of Lafayette Parish are discussed here.

The movement of individuals of African descent into Louisiana occurred in conjunction with and almost from the beginning of European presence in the territory. By 1713, 20 Blacks were recorded on the census in the present-day town of Biloxi, Mississippi (Dunbar-Nelson 2000). Importing slaves to the colony from Africa began in 1719, and in the 1770s slaves from the French West Indies were also brought to Louisiana (Dunbar-Nelson 2000). Although the slave trade into Louisiana was halted first from the West Indies and then in total in the late 18th
century, the presence of Africans in the colony had been secured (the practice would legally resume by the turn of the 19th century; Hanger 1996).

The gender imbalance in the frontier settlements meant that sexual exploitation of female slaves occurred rather frequently. These relationships warranted the establishment of the Code Noir, or Black Code, that governed slave-related issues under French rule, in 1724. Whites and Blacks maintained the same degree of rights (if any) they had previously; the laws were mostly concerned with defining the position of the newly emerging Creoles of Color (the *gens du couleur libre*, literally meaning “free people of color;” Brasseaux 1996). Under the Code, Creoles of Color were neither White nor truly Black and neither slave nor truly free. Even if their skin was just as dark as a slave’s, the Creoles of Color had more extensive privileges; they could pursue legal action against Whites, for example. Still, they were not social equals to Whites, who demanded respect from the Creoles of Color at all times.

While the Black population continued to grow under the French presence in Louisiana until 1769, it was under Spanish rule that the Creoles of Color really began to expand as a group (Hanger 1996). In the frontier society, men considerably outnumbered women. By the 1770s, disease, warfare, and slavery had taken its toll on Louisiana. The life expectancy for White men was nearly double that of White women, and the life expectancy of free Black women was more than 3.5 times that of free Black men (Martin 2000). Born out of these circumstances was the practice of *plaçage*. *Plaçage* was an elaborate and highly sophisticated system whereby eligible young Creoles of Color were partnered with wealthy European men. These unions extended beyond the sexual, and the men involved agreed to provide financially for the woman and their children even if the union were to dissolve (Martin 2000).
Outside of New Orleans, unions between European men and women of African descent were still common, and the lines between skin colors and social classes were further blurred. In the 1760s, just about the time the Acadians began arriving in Louisiana, French settlers, many of whom were retired French officers, settled in the Attakapas district (Lafayette and surrounding parishes). They brought their slaves with them as they attempted to build new lives for themselves. Some slaves who were brought to the Attakapas district did not remain slaves for the rest of their lives, however. A few female slaves were freed because of their romantic unions with the Frenchmen. Women were often emancipated if they had children with their White lovers because slave status was determined by the mother’s position (Brasseaux 1996). Still others (mostly male slaves) could be freed for exemplary service.

The depiction of this emerging class of freed slaves and Creoles of Color is an interesting one. Brasseaux (1996) writes that some of those freed in the Attakapas district were given or bought slaves and livestock; some even exceeded the wealth of a portion of the White population. In 1850, 4 families in the Attakapas and neighboring Opelousas districts had enough wealth to place them in the planter class. By 1860, 17 families fit that description in St. Landry Parish (part of the Opelousas district and neighbor of Lafayette Parish) alone.

Nearly 300 gens de couleur libre lived in the Attakapas area in 1810. Among these, there was a trend toward mixed-race households. Despite prohibitions against mixed-race households throughout the South, interracial unions formed 15% of all free Black households (meaning freed female slaves and their White lovers) by 1850. At this point, Creoles of Color had firmly separated themselves from the slaves and closely emulated much of White Creole culture (true outside of the Attakapas district as well). Approximately 90% of freed slaves were of mixed ancestry. In addition to distinguishing themselves by skin color, they dropped African names
and adopted the French language and the religion of Roman Catholicism. Those who valued education sent their children to good schools in New Orleans or abroad (Brasseaux 1996).

In Vermilionville, Lafayette’s predecessor, free Blacks formed the “largest single element of the town’s population” in 1850 (Brasseaux 1996:76), and for many, freedom meant financial and social success. Things began changing for the freed Blacks in the years immediately preceding the Civil War, however. Lawlessness in the area spurred the creation of vigilante groups who took it upon themselves to protect local citizens (Brasseaux, Fontenot, and Oubre 1994). The vigilantes’ hostility quickly shifted away from White criminals and toward alleged Black criminals. While some of the freed Blacks tried to ride out the wave of violence, many relocated to Mexico as well as Haiti to escape the conflict (Brasseaux 1996).

The Civil War did little to help the situation of freed Blacks in the Attakapas district. During the war, the Confederate government tried to conscript free Blacks from the area into the army as forced labor. After the war, both their social and economic status quickly deteriorated. The Creoles of Color had attempted to separate themselves from the Black slaves before the war. Now, with all Blacks freed, a separate class for free men of color was increasingly unnecessary. The fortunes of many of the most prosperous Creoles of Color before the war were decimated in the years immediately following it. By 1910, Brasseaux (1996:83) writes that most Creoles of Color were “reduced to tenantry”.

Although the Civil War was meant to improve the status of Blacks, most—whether Creoles of Color or newly freed Blacks—remained bound to the land and oftentimes bound to the very same sugar and cotton plantations from which they were released. As unskilled laborers, few work options outside of tenantry or plantation wage labor existed for many of the freed Blacks. Unlike the Cajuns, hardly any Blacks turned to the bayous to make their living. In
fact, Maguire (1989:68) writes that they were “excluded by local convention from entering the Atchafalaya and other swamps already monopolized as the domain of White fisherman and trappers.” Furthermore, because they had little or no capital, establishing their own farms was exceedingly difficult. In neighboring St. Martin Parish, 73.0% of Blacks were employed in agriculture; an additional 2.0% worked the land in other ways through farming or fishing in 1930 (Maguire 1989).

By World War II, the work opportunities of Black Louisianans were both expanding and contracting. War demanded an increase in industry across the nation, and a boom in defense-related jobs in Texas lead to widespread emigration of Black men (Maguire 1978). Farmers who relied on the cheap labor provided by Blacks to work their labor-intensive sugarcane and cotton fields scrambled to find an alternative. The result was rapid and widespread agricultural mechanization. Agricultural work opportunities for those who remained vanished overnight.

When using manual labor, one laborer was needed for every 7 to 8 acres in the field; with a tractor, one laborer was needed to work every 25 to 30 acres (Maguire 1978).

The history of opportunities for Black women differs from the history for Black men. Although some women worked in the fields alongside the men in Louisiana, many made their living as domestic servants. By the 1970s, however, in some communities, this type of work was frowned upon and abandoned because wages were so low “that social welfare [was] an alternative” (Jenkins 1976:40). Furthermore, the war-related industries and the oil and gas fields were closed to women (Maguire 1989).

Employment opportunities slowly expanded for African Americans in the 20th century, but Blacks were often still the “‘last hired and first fired’” in Louisiana as elsewhere (Jenkins 1976:23). For Blacks throughout the South, the Black church has been a significant social
institution. In Louisiana, the Catholic Church served as an important vehicle to talk about the residual prejudice and mistreatment that existed and to enact social change (Aiello 2011).

Catholicism in Louisiana could not escape the segregation the rest of the South endured. Churches were either segregated or had separate services for Whites and Blacks. Nevertheless, a social Catholicism was born. In a few instances, interracial committees were established to help fight some of the injustices Blacks faced. Sugar farming was exceptionally hard work, and the farmers often lived in atrocious living conditions. At one point, 80% of sugarcane farmers were Black (Aiello 2011). One of the committees organized a strike, petitioned for, and won marginal gains toward improving the working conditions. For the committee members, improving the working conditions of sugarcane farmers was not about race; it was about a moral obligation to take care of one’s spiritual brother.

Like the Civil War a century earlier, the Civil Rights movement was thought to be a major triumph for Blacks in the South and in Louisiana. But in practice, gaining access to the rights won through the movement was difficult. By the late 1960s, advocates for social justice working through the Catholic Church went beyond Civil Rights legislation to confronting the “economic problems that restricted African Americans’ lives and discouraged them from exercising their rights.” (de Jong 2011:145). Poverty, economic woes, and bullying by those in authority over important aspects of their lives (e.g., housing) prevented full participation by African Americans in the political arena.

The preceding pages have attempted to trace the history of people of African descent who were forcibly brought to Louisiana in the early days of European settlement. For these people, skin color and social status have been deeply entangled since the slave trade began; once here in
Louisiana, however, understanding one’s place in society became even more complex. Two classes of people of African descent were born: Black slaves and Creoles of color.

While the Creoles of Color, those who were neither Black nor White until the Civil War, were important in the history of Louisiana, their influence appears to have waned. Only 1.0% of residents in Lafayette Parish labeled themselves as being of mixed “race” on the 2005-2009 American Community Survey (although Creole is not an official classificatory term; U.S. Census Bureau 2009). It seems they have been reabsorbed ethnically and socially into the Black community, and the discrepancies that existed between Blacks and Whites both before and after the Civil War remain in Lafayette Parish. The median household income for Whites is $41,407 while for Blacks it is just $21,222 (for 1999, U.S. Census Bureau 2009). There are also more Black individuals and more Black families who find themselves below the poverty line than Whites (34% of Blacks and 10% of Whites). In Lafayette, Whites and Blacks are still separated by the train tracks—both literally and figuratively. The Northside is the portion of Lafayette with the highest percentage of Black residents. It is locally known as the poorer and more dangerous side of town although attempts are being made to revamp this image by rechristening the area “Upper Lafayette” and offering economic incentives for businesses to settle there.

The history of Louisiana is deeply connected to the history of the Africans brought in as slaves, but their place in contemporary society is unclear. The once-prominent Creoles of Color had their social and economic successes stripped from them after the Civil War. Reunited in position with former slaves, they, like Blacks everywhere, continue to occupy a disadvantageous position in society.
**French Interests**

Europeans have held interest in what is now recognized as Louisiana for approximately 500 years. In the early 16th century, Alonso Álvarez de Pineda and Hernando de Soto, both from Spain, explored the Louisiana gulf coast and the mouth of the Mississippi River. A century later, French interests also came to the area. In 1672, Robert de la Salle (or René-Robert Cavalier) traveled down the Mississippi River from present-day Indiana and claimed the river and its surrounding territory for France. In honor of King Louis XIV, he named the region “La Louisiane.”

The French were neither the only Europeans to settle in Louisiana nor the only people to govern the new territory. Yet their impact on life in Louisiana was profound. Below is a short discussion of the White Creoles (primarily the French White Creoles). Next is a description of the arrival of the Acadians and their impact on Louisiana. While not directly European, their French heritage is important to their history as well as the history of the Cajun people, the Louisiana-born descendants of the Acadians (discussed in the following section).

**White Creoles**

Louisiana officially came under French Colonial rule in 1699, and New Orleans became its administrative center some 20 years later. The French soldiers formed the top of the social hierarchy above the *coureurs de bois*, Canadian fur traders operating in the territory without official French consent (Brasseaux 1986), Native Americans (slaves and otherwise), and African slaves. Even though Spain (reluctantly) took over the territory in the 1760s, the frontier inhabitants were still loyal to the French crown (Dominguez 1977). By the early 19th century, Louisiana changed hands once again; this time it became an American territory with Louisiana formally recognized as a state in 1812. In the territory, animosity between the French and the
Americans intensified, and preserving French identity became paramount. Dominguez (1977) suggests that it was at this time that the Creole label was used by the White elite living in Louisiana who valued the purity of its European ancestry as well as birth in the colonies; because of the latter, they often considered themselves “true” Creoles. These White Creoles also distinguished themselves from other groups in the area by speaking River or Standard Colonial French, the closest type of French spoken in Louisiana to Standard French (the French spoken in France). Although many people have commonly understood and spoken two or three types of Louisiana French, River French has historically held the highest prestige (Marshall 1982). Because the number of individuals who speak River French and maintain a White Creole identity has dwindled, the term Creole is now more widely used to designate Creoles of Color (Marshall 1982).

The Acadians

By the mid-18th century, yet another group of Whites was finding its way to Louisiana. The first wave of Acadians arrived in Louisiana in 1765 under great duress. Just a few years earlier, the Acadian people had been living in Acadie in present-day Nova Scotia and centered at the town of Grand Pré on the shores of the Bay of Fundy (Jobb 2005). There, the Acadians had carved out an existence as farmers after reclaiming the bay’s marshlands. Conflict between the French and English was continual in the region of Acadie. In 1713, the area officially belonged to the British, but by the mid-1700s, war threatened to break out again, leaving the Acadians in a precarious situation. Although they attempted to remain neutral during the controversy, the Acadians’ allegiance was sought by the French, their ancestors, and the English, their current rulers. After the fall of Beauséjour in 1755, Charles Lawrence, acting governor of Nova Scotia, sought to remove the French presence in the territory. The Acadians were once again asked to
announce their allegiance to England or face consequences. The result was Le Grand Dérangement, the expulsion of more than half of the 17,000 Acadians from their original homeland. The Acadians were forcibly removed from their homes with few possessions. Families were purposely separated and dropped at various ports in England, France, and along the eastern seaboard of the United States (Rushton 1979). Described as “genocide” by one researcher (Jobb 2005), Le Grand Dérangement counts at least 5,000 among its victims, approximately one-third of the Acadian population.

Eventually, however, many of the Acadians were reunited in another location: Louisiana. Although Louisiana was technically under Spanish rule in the mid-1760s, the lack of Spanish officials in the territory meant that the French remained in charge (Fortier 1891). The Acadians were welcomed and allowed to settle a region north of New Orleans along the Mississippi River which at the time came to be called Louisiana’s Acadian Coast. There, they prospered as farmers. By the end of the 18th century, Rushton (1979:66-67) remarks that the predominantly French-speaking Louisiana had grown to be the wealthiest and most freewheeling region in North America… Louisiana was Dixieland, the literal land of French-language ten-dollar banknotes, or dix notes, seemingly spawned directly from the state’s rich, living alluvial soil.

Although prosperous for a time, things began to change for the Acadians during the first few years of the 19th century. The continual change of hands from Spanish to French to, finally, American control in 1803 with the signing of the Louisiana Purchase had a profound impact on the lives of Acadians living in Louisiana, especially after statehood in 1812. Marked by a different language, religion, and cultural history, the Acadians were very different from the Anglo-Saxon Protestants living in the rest of the young nation. After official incorporation into the United States, the Acadians suffered a “slower second Expulsion,” the removal from the Acadian Coast and gradual resettlement into the more marginal areas with which contemporary
Cajuns have become synonymous (Rushton 1979:67). The affluence early Acadian settlers had experienced had all but disappeared.

This section has briefly examined French influence in the territory of Louisiana. The French (and French-speakers) have maintained a continual presence in the “New World” for the last 300 years, and their role in shaping Louisiana cannot be underestimated. In the previous sections, the lives of Native Americans, slaves, and Creoles of Color were inextricably bound to those with power in the new territory, namely the French. While not as powerful upon their arrival in Louisiana, the legacy of the Acadians is perhaps even further reaching than that of the French. In the next sections, the importance of the Acadians-turned-Cajuns to Louisiana’s history is explored.

The Making of Cajuns

While often used interchangeably, the words Acadian and Cajun do not share exactly the same meaning and have not for quite some time (Foret 1992). The two words are linked; Cajun is believed to be an anglicized version of the original Acadien. But life in Louisiana altered the Acadians in such a profound way that they—along with members of other immigrant groups—were transformed into a new ethnic group, the Cajuns.

Defining Cajun identity is a tricky endeavor, however. There is no single point in history where Acadians have become Cajuns. To describe the transition from Acadian to Cajun, the following paragraphs focus on 19th-century Louisiana when Acadians were forced from the farms along the Mississippi River and into southwestern Louisiana. Because there is no single vantage point that can define Cajuns identity, this section details two very different depictions of 19th-century Cajuns. The first is the traditional, often caricatured portrayal of Cajuns. The
second outlines a seemingly radical view: the cosmopolitan Cajuns. In Fortier’s (1891) words, “It is civilization now, but side by side with primeval forest.”

Cajun of the Forest

After the “second Expulsion” the future Cajuns were relegated to less desirable lands in southwestern Louisiana, namely the brackish waters of Bayous Teche and Lafourche and tributaries of the Atchafalaya, Red, and Vermilion Rivers. There, they excelled in making the most of marginal resources through hunting, gathering, and limited farming (Tentchoff 1980). Local marine life, such as fish, crawfish, crabs, frogs, turtles, and alligators, supplied much of the food while fur trapping and moss gathering supplemented incomes (Begnaud and Gibson 1975). The deep connection between Cajuns and their land persists in more recent accounts. In his description of a Cajun oyster fisherman, Rushton (1979:101) writes, “He lives as close to the seas as the land will allow, and he knows the interdependence of both well enough to know where to find his own place.” Continuing to this day, many Cajuns also celebrate the agricultural crops of their heritage, including rice, sugar, and sweet potatoes, through festivals (Esman 1982).

Language is another distinctive feature of Cajuns. Although Louisiana has a long history of French influence, several types of French have historically been spoken in the area; these are inextricably bound to ethnicity in the region. Cajun French is most commonly used among those people whose ancestry includes but is not limited to Acadians. It differs considerably from River or Standard Colonial French spoken by older, highly educated, and upper class Whites who consider themselves “true” Creoles—ones with pure European ancestry (Dominguez 1977). Cajun French also significantly differs from Creole French, a dialect primarily spoken by Africans and Afro-Caribbeans and emerged primarily as a result of planter-slave interactions (Brown 1993). Many people have commonly understood and spoken more than one type of
Louisiana French, and code-switching, in which one dialect of a language is exchanged in conversation for another dialect, is often employed in the region and may be initiated according to the social status of the speakers (Marshall 1982). While Creole French has generally held the lowest status, Cajun French itself has historically been stigmatized, especially by White Creoles and Americans. Its speakers, occupying a linguistically ambiguous position, are seen as “hopelessly incapable of learning to speak a ‘proper’ English and… ridiculed for not speaking a ‘real’ French” (Tentchoff 1980:230).

Other distinctions could be made between the Cajuns and their American Protestant “neighbors:” Cajuns tended to have close-knit and larger families, engaged in different religious practices, and adopted a carefree attitude toward life (or joie de vivre) that often ran counter to the more austere lifestyle of non-Catholics. Family life was considered the bedrock of Cajun society, and keeping one’s family close and strangers (especially non-French speakers) at a distance was paramount (Estaville 1987). Strangers were accepted through marriage but, it seems, only on the condition that they were assimilated into Cajun life as quickly as possible (Bankston and Henry 1999).

For Cajuns, the practice of Catholicism was also extremely important. The church was the center of social and spiritual life, and its establishment suggested prosperity and growth (Dismukes 1972). In St. Martinville, Louisiana, the parish directly to the east of Lafayette parish, for example, St. Martin de Tours Catholic Church, was established in the early 19th century and aided in the further development of a town. In Lafayette Parish, the establishment of St. John Catholic Church (now Cathedral) was one of the first buildings constructed in present-day Lafayette—even before a parish seat of government— and fostered city growth (Dismukes 1972).
Cajuns have typically been characterized as being simple and poor. Adoption of an easygoing approach toward life did little to improve this view. Fortier (1891:81) writes, “The Acadians… are, as a rule, lacking in ambition. They are laborious, but they appear to be satisfied, if by cultivating their patch of ground with their sons, they manage to live with a little comfort.” In a similar description, Tentchoff (1980:230) writes that Cajuns are seen as blissfully unaware of their lot in life, content to enjoy life to the fullest “with no care for the poverty of [their] surroundings.”

The Cajun’s “greatest defect” has been said to be their general resistance to public education (Fortier 1891:80). Two classes of Whites existed in Louisiana: the landholding planters and poor Whites (many being Cajuns). Voting rights in the early 19th century were restricted only to those who held property or paid taxes. According to Dismukes (1972), landowners saw no reason to tax themselves in order to fund schools for the poor. Instead, they passed the burden of responsibility on to others to create and sustain schools for the poor. The resultant charity schools were met with little support from the people they were supposed to serve, however. Cajuns’ views of education continued to worsen after the Civil War. State legislation mandated all public instruction to be in English when most Cajuns still spoke Cajun French. Additionally, Reconstruction demanded that both Whites and Blacks have the opportunity for public education. Both English instruction and desegregated classrooms were unpalatable for Cajuns (Dismukes 1972, Estaville 1987).

*The ‘Civilized’ Cajun*

Previous research has attempted to depict Cajuns’ isolation as twofold: insulated from the outside world geographically and impervious to influence by others around them socially (Begnaud and Gibson 1975, Estaville 1987). They are then set upon an unchanging island akin
to more familiar anthropological groups like the Yanomamo or the !Kung. Within the borders of the United States, one of the most technologically advanced nations in the world, lived also one of the simplest. Somehow, the Cajuns had been preserved in a state of innocence while the world moved and changed around them. This is Fortier’s (1891) Cajun of the woods: the Cajun who speaks French, is Catholic, makes a living off the land (or more often, the sea), and enjoys life even if it leaves him or her uneducated and poor.

It is highly unlikely that most Cajuns lived the pastoral existence depicted above. From the 1760s, they shared their new homeland with Americans as well as French, German, Spanish, Dutch, Irish, English, and Afro-Caribbean immigrants (Tentchoff 1980). The traditional view holds Cajun culture as dominant to the cultures of all these groups despite its low prestige value throughout history. These groups are believed to have been assimilated into Cajun culture—“by the blood, by the ring, or by the back door” (Green 1981:64)—so that Schexnayders and Taylors are as likely to be Cajuns as Boudreauxs and Thibodauxs (Tentchoff 1980). Estaville (1987:117) argues against this view of the “changeless” Cajun culture, a culture purported to have interacted with other traditions but experienced “no erosion, no change to itself for more than one hundred years.” The opposing view holds Cajuns as more cosmopolitan. From this standpoint, Cajuns are not shielded from but shaped by their interactions with other groups. Especially during the antebellum period, they were active in politics at all levels. Instead of relying solely on subsistence farming and gathering, the Cajuns are seen as being actively involved in the changing economy of the 19th century. These are discussed in more detail below.

Cajun life is often equated with life on water. Indeed, southern Louisiana is covered in waterways as large as the Mississippi and Red Rivers to the smaller bayous that crisscross the landscape. In the traditional view of Cajun culture, these waterways are seen as prohibiting
interaction between Cajuns and other groups. Estaville (1987:127) suggests this line of thinking is flawed and that, in actuality, “the basin was a highly porous landscape allowing them [the Cajuns] to roam widely within it and enabling their constant contact between the Mississippi and the Teche [Rivers].” Access as far as New Orleans was further secured with the coming of the steamboat to southwestern Louisiana in the 1820s. The steamboat brought the Cajuns in contact with goods and people throughout southern Louisiana at the very least.

The new picture of Cajuns that has emerged is that they were not rural but urban folk. In 1900, more than 60% of towns with a population over 2,500 were located in southwestern Louisiana. Furthermore, Cajuns made up a full quarter of Lafayette’s White urban population at the turn of the 20th century (Estaville 1987). It is likely that they were drawn to urban centers by increased development. During the years preceding the Civil War, Vermilionville (now Lafayette) was experiencing considerable growth (Dismukes 1972, Millet 1972). Until 1880, however, the development of towns in southwestern Louisiana was slow. Helped by the extension of transportation services like the railroad (see below), towns like Lafayette and surrounding areas grew to be some of the most important communities in the state (Millet 1972).

Contrary also to the rural, simple image of the Cajuns is the fact that many Acadians served in offices throughout the local and state government. Vermilionville was almost singlehandedly established by a Cajun family, the Moutons. The same family also produced Louisiana’s first popularly elected governor, Alexandre Mouton (1843-1846). In all, before 1860, six of 13 governors were either Acadians or had French ancestry (Estaville 1987).

The geographical and social barriers that are thought to have existed between Cajuns and other White settlers are increasingly being challenged (Estaville 1987). Although the image of a
traditional Cajun making his living from the land is quaint, its utility in understanding the
historical Cajun may be limited.

_The True Cajuns_

Trépanier (1991:169) writes, “The farther one stands from the reality and intricacy of
community living, the easier it is to see French Louisiana as a cultural monolith.” Two very
different views of Cajun life, particularly as it existed in the 19th century, appear above. One
paints the Cajun as the consummate survivor. Despite all odds, Cajuns are seen as exceptionally
resourceful and flourish in even the most difficult situations. This Cajun is a simple person,
probably poor and uneducated. Most likely he or she speaks French and is Catholic. Acadian
descent is also probable but not definite. The second picture is one of the urban Cajun, a person
not isolated from the world as it developed in the 19th century but an active part of it. This Cajun
is more affluent and educated. He or she is probably still Catholic and may speak French
alongside English. Acadian descent may be likely, but “Cajunness” as a concept is more
forgiving.

Neither of these images taken alone can represent Cajun identity. Cajun identity did not
end with the closing of the 19th century, and like their predecessors before them, contemporary
Cajuns have continued to evolve. Both rural and urban Cajuns have existed and continue to
persist into the present.

_From Vermilionville to Lafayette: The growth of a city_

There is no record of exactly when the settlement of Vermilion (the predecessor of
Vermilionville and later Lafayette) was established. It is clear, however, that the site was already
in existence by the time William Darby, a land surveyor and explorer of the Louisiana area,
mapped the area in the first two decades of the 19th century (Gomez 1993). After the Louisiana Purchase and before statehood, the Territory of Orleans was divided into counties (larger than contemporary counties). Lafayette was part of Attakapas County, its center at St. Martinville. By the 1820s, the population in the county had swelled enough that the Diocese of New Orleans had the parishes in the area redistricted (Dismukes 1972). Lafayette was relocated to the parish of St. Charles of Grand Coteau but was again redistricted just two years later to its own parish after Jean Mouton, whose family is mentioned above, donated land on which to build the settlement’s new church. Like most parishes in the region, the new church became the center of religious and social life in the growing community. In the same year, the state’s government also rezoned some of the existing parishes for local administrative purposes, and Lafayette Parish was created (Griffin 1974). As its own parish, it would need a seat of government; again, the land was donated by Mouton’s family. Thus, Vermilionville, with its new church and government building, was born in 1823.

Throughout much of the 19th century, Vermilionville experienced slow growth while the rest of the state flourished (its population in 1870 was less than 800). Cotton, like in the rest of the South, was king, and other agriculture products streaming out of “Louisiana’s garden” such as sugar were abundant (Estaville 1987). This was directly the result of increased opportunities in steamboat transportation along the Mississippi and in other Louisiana waterways (Estaville 1987). It was not until significant advances in steamboat transportation and the expansion of the railroad were completed (discussed below) that propelled Lafayette to its present state. Griffin (1974:27) writes, “It is a well known law that wherever occurs a break in transportation there will grow a city. The fact that Lafayette stands where it is today is due to the working of that law.”
During this period, Dismukes (1972) argues that opportunities for middle class expansion were possible. In the region as a whole, the South is typically associated with the plantation legend; that is, all Whites were owners of large farms and many slaves. By 1850, however, only 4.9% of Southern Whites owned slaves, and of them, only 11% had enough wealth to hold more than 100 slaves and own plantations (Cooper and Terrill 1990). In Lafayette, small farmers were also the norm: while almost 50% of people in Lafayette Parish owned slaves, 83% of them owned less than 10 (Dismukes 1972). By the middle of the 19\textsuperscript{th} century, urban centers in southwestern Louisiana began to grow more steadily. This was fueled by a surge in European immigration and by the difficulties faced by children of small farmers to make a living (Dismukes 1972). Instead of farming, these people turned to urban-based opportunities in manufacturing and as merchants.

\textit{The Birth of `Hub City’}

The decade of greatest growth for Lafayette during the 19\textsuperscript{th} century occurred during the 1880s. Prior to this, Lafayette—like other parish seats in southwestern Louisiana— was, more or less, a village (Millet 1972). Over a 40 year span, the length of railroad tracks in Louisiana increased fivefold. In 1880, the railroad in Louisiana was extended to connect New Orleans and Texas via Lake Charles—straight through Cajun country. Thanks to influential advocates like the Mouton family, Vermilionville became part of the line; its first locomotive, the \textit{Sabine}, reached the city in 1880. It became the eastern terminus for two railroad lines and was touted as a great place to open businesses by the railroads themselves (Dismukes 1972). The effect was nearly instantaneous and rather astounding, according to one observer in 1885: “‘The building of the railroad brought men with capital, brains, and energy, to all of Southwestern Louisiana’” (anonymous, cited in Millet 1972).
At that time, Vermilionville started its transition to modern Lafayette, the “Hub City” its current nickname suggests. After the Civil War, urbanization and industrialization became a way of life in Lafayette and the rest of the country (Millet 1972). Various mills were erected to process agriculture products, and some companies established their headquarters and distribution centers there; additionally, services needed for the railroad, such as a freight depot and railroad yard, were added (Dismukes 1972, Millet 1972). Subdivisions were steadily added throughout this period, and expansion was angled toward the railroad (Griffin 1974). Telegraph and telephone services, electricity, and a city waterworks were all part of Lafayette before the turn of the 20th century.

This section has outlined the growth of Lafayette as a city throughout the 19th century. Little more than a frontier settlement in the early 1800s, Lafayette was transformed into an important city in southwestern Louisiana in less than 100 years. The establishment of religious and governmental centers early on in its history coupled with the aid of influential families in politics, Lafayette was able to firmly forge its evolving identity as a distribution, transportation, and service center.

Lafayette in the 20th century: The “Hub City” Realized

Lafayette has changed considerably since its founding in the 19th century, and the dawn of the 20th century held great potential for Lafayette. In the previous two decades, it had seen unparalleled growth as the result of better transportation and a surge in commerce. The population was increasing and would nearly double by 1910 (to 7,000; Dismukes 1972, Griffin 1974). Two landmark features of contemporary Lafayette were absent from the landscape prior to 1900, however. These were the University of Louisiana-Lafayette and the oil industry. At the
community level, the changes brought by these institutions were significant. Change occurred at the family level as well. These are discussed at the end of this section.

*The Rise of Education*

The University of Louisiana-Lafayette is situated on approximately 1,400 acres, more than 130 of which house the main 274-building campus. In the fall of 2010, nearly 17,000 students at the undergraduate and graduate level were enrolled (University of Louisiana-Lafayette 2010). The economic impact the university has on the community is astounding. Of the $755 million in total spending at the university, the university estimates that $726 million are felt in the Acadiana region. According to the university’s website, if it were a private business, Lafayette would be the largest private employer in the parish (University of Louisiana-Lafayette 2010).

In 1901, however, this was not the case. When it opened its doors that year, the then-named Southwestern Louisiana Industrial Institute taught only a sub-college curriculum and counted less than 150 boys and girls as its students (Dismukes 1972). Still, the impacts it had on Lafayette were profound. Land prices and home construction increased near the campus; like now, it served as a major employer for the area (Garber 1999). From the beginning, the University of Louisiana-Lafayette’s relationship with the community of Lafayette was deep. When the school needed extra funding for expansion (after receiving little support from the state), the school’s president reached out to the community; in return, the school’s president routinely opened the university’s doors for training, conferences, and sporting events (Dismukes 1972). Later, in the 1930s, Southwestern Louisiana Industrial Institute created a plan to help men attend school who otherwise could not pay because of the effects of the Great Depression (Griffin 1974).
Over the coming decades, the admission requirements were raised so that the Southwestern Louisiana Industrial Institute became a college in 1921. Forty years later, the college was granted university status. Today, the University of Louisiana-Lafayette is the city’s second highest employer in education—second only to the Lafayette Parish School Board—and third highest overall (Lafayette Economic Development Association, LEDA 2007).

The Oil Center

Not long after the establishment of Southwestern Louisiana Industrial Institute, a Jewish businessman arrived in town and opened a store in downtown Lafayette. Competing with long-established department stores like J.C. Penney, he approached his new business with zeal, aggressive marketing, and competitive pricing. By buying wholesale, he was able to offer lower prices to the masses; he managed to maintain his appeal among higher-end customers by securing fashions from larger cities like New York (Garber 1999). For Maurice Heymann, however, the bargain store he built was only the beginning.

Although prophetic, his store’s motto “Watch Us Grow” could not fully describe the impact Heymann’s professional life would have on the city of Lafayette. Soon, his bargain store was transformed into the city’s first supermarket that sold canned goods alongside the latest fashions. Next, he purchased plots of property and set up a lucrative plant nursery (Garber 1999). These ventures, however, pale in comparison to Heymann’s work at establishing a second business district in town catering specifically to the oil industry. Although oil was first discovered in the Lafayette area in 1934, two decades would pass before the construction of the oil center. In the years following oil’s discovery, Lafayette was considered an undesirable place for oil-related business because of its geography; the swamps and marshlands where oil had been discovered were virtually impossible to explore and exploit given the technology at the time.
Instead, Lake Charles was picked over Lafayette as the industry’s Louisiana-based office, primarily for its proximity to Texas-based operations and because of Lafayette’s distance from the coast (Dismukes 1972).

For a number of reasons, the oil industry reconsidered Lake Charles as its Louisiana base, and by the 1950s, several oil executives approached Heymann to build office complexes for their headquarters. His dream of building the oil center, as he called it, was fast approaching reality (Garber 1999, Griffin 1974). As a result of increasing oil industry, aviation, especially helicopter travel, also grew in Lafayette.

Like the railroad boom of the 1880s, the impact of the oil industry was impressive and long-lasting. By 1960, Lafayette’s population had grown to 40,000 (up from less than 8,000 at the turn of the century); by 1970, the population grew to 50,000 (Dismukes 1972). Currently, 38 out of 109 of Acadiana’s biggest businesses are directly involved in the oil and gas industry; countless others, including wholesale distributors and transportation services, are indirectly tied to the industry (LEDA 2007).

In the 19th century, Lafayette made great strides in transportation, manufacturing, and household services that distinguished it from other growing cities in southwestern Louisiana. By the end of the 20th century, it had added two more industries that furthered the claim that Lafayette was indeed a ‘hub city’: education and oil. The success these industries have brought to Lafayette and its surrounding communities has been great. Lafayette was named one of the nation’s top 20 “recession-proof cities” for 2010 (The Daily Beast 2010). It made the list based on growth in overall employment, per capita personal income, and metro area gross domestic product.
True to its namesake, Lafayette is also expanding into other industries. It has made strides over the last couple of years to attract the movie industry to the area; recently, the movie *Secretariat* was filmed here, and a new movie starring Tom Cruise is slated to begin filming this spring. Also, the area has seen growth in computer-related industry. Lafayette Utilities Systems has built a 65-mile fiber optic network for television and internet delivery. Lafayette is also home to Louisiana Immersive Technologies Enterprise (LITE), which is, according to its website, “a 3-D immersive visualization and high-performance computing resource center” (LITE n.d.). Partnered with LEDA and the University of Louisiana-Lafayette, LITE has been touted as the “future of business” in a 2004 media release by LEDA. In the same year, Lafayette was named one of the “most attractive cities in the country for high-tech businesses) (LEDA 2004).

*Family, Marriage, and Kinship*

Kin networks have been historically important for both Whites and Blacks in southern Louisiana. Esman (1981) writes that for 19th century Cajuns, most daily interactions were with family members and that group activities essential for survival, from butchering an animal to working together to build a house, were family-based. Among African Americans, family was the center of daily life as well. Between 1810 and 1864, Malone (1987) found that slaves often lived in simple-family households, which are defined as families consisting of a single person with children, a married couple with children, or a married couple with no children. Although slave families were more vulnerable to social and economic change, most slaves belonged to one.

Family remains important to residents of Lafayette. An often-quoted cookbook title, *Who’s Your Mama, Are You Catholic, and Can You Make A Roux?*, exemplifies just how
important family connections are to Cajun identity. One study interested in examining African Americans’ understanding of the interaction between stress and high blood pressure found that many study participants reported sharing income with their kin group and that African American women especially were believed to be the “caregivers” of families and the close-knit community which they lived (Boutain 2001). Another showed that Black households in one south Louisiana community typically included three generations or other relatives, such as siblings or nieces and nephews (Jenkins 1978).

Family structure has changed over the decades since Lafayette and its inhabitants first settled here, however. Recent research shows that the nuclear families and tight-knit extended kin networks that have been highly valued by local residents historically are declining. Currently, nearly half (45%) of children in Louisiana live in single-parent homes; that rate is second only to Mississippi (The Annie E. Casey Foundation 2009). Differences in family type also exist by ethnicity. More than 80% of White children live in nuclear families while less than 41% of Black children do. Black children are the only group where single-parent families outnumber nuclear families (Annie E. Casey Foundation 2006).

While there is no direct way to measure the role kin networks play in family life, 18.5% of all households in Lafayette Parish have at least one person over the age of 65. Nearly 3,900 households report one or more grandparents living in the same house as children under 18 years old. Nearly a third of those grandparents are the caregivers of their grandchildren (U.S. Census Bureau 2010). These numbers are actually lower than the United States as a whole (24.8% of households with a person over 65 years old, 39.1% of grandparents caring for their grandchildren; U.S. Census Bureau 2010).
Striking differences in work status by family type also exist. In nuclear families, having two working parents is the norm (at 58.0%). Families where only fathers were employed made up 32% of the total. Families in which mothers were employed or where neither parent worked made up approximately 5% each of the total. In mother-only households, the percentage of employed women increases. Approximately 63% of nuclear families had working mothers while that number increases to 70% of mother-only households. There is a decrease in employment in father-only households. Nearly 90% of men worked in two-parent households while roughly 77% of fathers in father-only households did so.

Other Ethnographical Features

Southwestern Louisiana, like the rest of the United States, relies on a market-based economy. Because of this, it is highly stratified. Nevertheless, family and a sense of community remain integral to life in Lafayette. Nuclear families remain the desired cultural norm, but single-parent families and families in which additional relatives live in the same household are also found. Neolocal residence is the most common marital residence pattern although family members from both sides are commonly found in town. Kinship is bilateral, meaning that it traces both father and mother's heritage.

Conclusions

This chapter has provided a brief introduction to the rather complex history of Louisiana. The influences on the state have been many. Native Americans were the first to call the state home and did so for thousands of years before others arrived. Louisiana became a refuge for the exiled Acadians of warring empires. The state welcomed Creoles White and Black from the Caribbean. Europeans—the French, Spanish, and Germans to name a few—have called it home. Americans too have deeply impacted the state’s development. Such a brief introduction cannot
fully describe the impacts of each group and necessarily privileges the histories of some groups over others.
Chapter 5: Setting and Methods

ADHD is one of the most pervasive pediatric disorders facing American children today (Searight and McLaren 1998). In 2007, researchers estimated that nearly 1 in 10 children has been diagnosed with ADHD (Visser et al. 2010). The same analysis revealed that prevalence rates differed significantly at the regional level; in the South, the disease burden is higher than any other region in the United States. This is especially true in Louisiana where this research was conducted. Louisiana has the third highest state-level prevalence of ADHD in the country—a staggering 14.2% among 4 to 17-year old children. This figure is up nearly 40% since 2003 (Bloom and Cohen 2007, Visser et al. 2010). Because of the high prevalence of students with ADHD, it was believed that the state of Louisiana also had a significant number of students who could be considered at risk of developing the disorder, a key population in the present study.

The first section in this chapter is dedicated to describing the setting of this research in more detail; this includes descriptions of Lafayette parish and the four study schools. Then the methods used to conduct the study, divided by project phase, are discussed. Finally, the plans for data analysis are described.
Setting

Lafayette Parish

Lafayette parish is situated in southwestern Louisiana approximately 60 miles west of the state’s capital of Baton Rouge; 15 miles west of the Atchafalaya Basin, the largest swamp in the United States; and less than 40 miles north of the Gulf of Mexico (Lafayette Convention and Visitors Commission 2011). The parish is approximately 270 square miles in size, of which the city of Lafayette comprises 47 square miles.

Lafayette parish is home to more than 200,000 people, a population that has grown by nearly 11% in the first decade of the 21st century (U.S. Census Bureau 2009). According to the U.S. Census Bureau, approximately 72% of the parish’s citizens are White while 29% are Black; these figures are slightly higher and lower than state averages, respectively. Other ethnic minorities are present in Lafayette parish to a lesser extent: Asians make up about 1.3% of the population while those of Hispanic descent make up nearly 3%.

The median household income in the parish for 2008 was slightly over $48,000—more than the state’s average. The parish also had fewer people living below the poverty line than the state as a whole. Higher educational attainment (nearly one third of Lafayette’s residents have a bachelor’s degree) and a booming economy may explain these discrepancies (The Daily Beast 2010, U.S. Census Bureau 2009).

The parish’s public school system serves approximately 30,000 students at 43 schools. Of these students, approximately 50.3% are White and nearly 43.4% are Black (Annie E. Casey Foundation 2009). Based on the parish’s demographics, more White students should be expected in the public schools than are enrolled. This discrepancy is due, in part, because many White students are enrolled in one of the parish’s 30 private schools—most of which are
Catholic or other Christian schools. According to one measure, nearly 90% of students enrolled in the parish’s private schools are White (Annie E. Casey Foundation 2009).

A wide range of educational programs exists for students enrolled in the local public school system: schools dedicated to teaching the gifted and the disabled; alternative schools; language immersion schools, the most popular of which is French immersion; charter schools; and what are locally known as “schools of choice,” academic settings that meet the core educational requirements set forth by the state but that also offer students opportunities to study non-traditional subjects, such as engineering, art, and business, to help jumpstart their careers upon graduation (Lafayette Parish School System 2009).

Despite its efforts to diversify the educational opportunities for its public school students, the Lafayette Parish School System has struggled with several issues over the years. First, wide educational gaps exist between segments of the student population. Poor students (measured by receipt of free or reduced-price lunch) and Black students perform significantly worse than non-poor and White students on state testing. For example, less than 60% of the third grade students receiving free or reduced lunch who took the English and language arts portion of the LEAP (Louisiana Educational Assessment Program) test in the spring of 2010 scored at the basic level of proficiency or above on their test; 88% of those not on the free or reduced lunch program scored at the basic level of proficiency or above for the English and language arts test. Additionally, only 54% of Black third graders taking the same test scored basic proficiency or above on the LEAP while 88% of White students did (Louisiana Department of Education 2011).

Based on its 2010 School Performance Score of 96.5 (calculated through attendance and academic performance), Lafayette Parish is a 2-star school district. This puts it at the same level of performance as 40 other state districts and behind 18 more (LDOE 2011). While 8 out of 38
schools in the parish were shown to have grown academically in 2010, for the 2007-2008 school year, three local schools were rated academically unacceptable, and five more were on the verge of falling into that category with a rating of 1 star out of 5 in performance given by the Louisiana Department of Education. Students in one of the academically unacceptable schools, for example, were performing an average of three times lower on statewide tests than other students in the Lafayette Parish School District and the state (Louisiana DOE 2008). All three schools rated as academically unacceptable face the possibility of being taken over eventually by the state. According to parents and teachers quoted in a March 2009 article appearing in The Daily Advertiser, Lafayette’s primary newspaper, failure at the school level is indicative of greater problems in the community. First, the schools primarily serve poor, minority students—a group of students the parish has admittedly had trouble adequately serving since at least 2000. A second, and perhaps larger issue, is that the students filling the seats of these schools have personal difficulties that probably affect their academic performance. The article notes a third of one elementary school’s students have documented learning, emotional, or mental problems.

In an effort to counteract the trends seen in some of its lower-performing schools, both the community and the Lafayette Parish School Board have responded. Community-based literacy groups that are led by African Americans have dedicated themselves to working with the schools. In September of 2009, the school board announced that it would begin offering free tutoring and the opportunity to switch schools for some of its students. Additionally, the Lafayette Parish School Board began hosting a series of town-hall meetings to discuss issues of performance, school facilities, and future directions in local education.
Study Schools

This research was conducted in four elementary schools in Lafayette, each of which has students in grades K through 5. These schools were chosen primarily to represent the socioeconomic diversity of the city.

Ernest Gallet Elementary: Ernest Gallet is the only study school to have an address outside of Lafayette city; it is, however, still considered to be part of the Lafayette Parish School System. Ernest Gallet is located in Youngsville, LA, in an area that has seen a large influx in new development. Across the street from the school is a large Louisiana-based grocery store as well as a bank, two drugstores, and a fast food restaurant—most of which have been built recently. Behind this commercial center is a new planned residential center with shops, a walking park, and community pond. With more than 1,000 students, Ernest Gallet is the largest study school. It has the smallest minority student population percent (27.5%, which most closely matches the city and state’s demographics). Ernest Gallet received the highest School Performance Score (SPS) of the study schools (119.6).
It has the lowest rates of students receiving free or reduced lunch as well as the lowest rates of in- and out-of-school suspension.

**J.W. Faulk Elementary:** J.W. Faulk is located in the heart of one of the poorest sections of town, the “Northside.” More than 97% of the school’s 640 students are minority students. An equal percentage of students also participate in the free or reduced lunch program. As mentioned previously, minority students and students who receive free or reduced lunch tend to score more poorly on academic tests across the state. It is perhaps not surprising then that J.W. Faulk had the lowest SPS of all the study schools with a score of 66.6.
Although it is one of the lowest performing schools, J.W. Faulk has one of the highest percentages of highly qualified teachers teaching its students. The school’s in- and out-of-school suspension rates fall in the middle of the study schools.

**Live Oak Elementary:** Like J.W. Faulk, Live Oak is also located on the northern side of Lafayette Parish. Although the school is set on an expansive campus, it is the smallest study school in terms of student population (636 students). Just a few miles from Interstates 10 and 49, Live Oak is mostly surrounded by modest residential neighborhoods. More than 85% of its students receive free or reduced lunch. Nearly three quarters of the students are also minority students.
Figure 5.3: Live Oak Elementary School

Live Oak had the highest in-school (13.1%) and out-of-school (8.7%) suspension rates of all study schools. The school’s SPS score of 89.8 most closely matched that of the district as a whole.

Prairie Elementary: More than 850 students attend Prairie Elementary, which is located off of one of Lafayette’s main thoroughfares. The school is across the street from a hospital and near the largest shopping area of town. It appears to be the next oldest school after J.W. Faulk. Prairie Elementary is unique among the study schools in that it offers students the opportunity to study many of their subjects in French. French Immersion is a special program to which students must apply; even if they do not live within Prairie’s school zone, they still can attend the program. In this project, parents of students in both the traditional classroom and French Immersion classrooms were interviewed.
Prairie Elementary has the second lowest percentage of students receiving free or reduced lunch. Nearly half of its students are considered minority students (49.7%). Prairie Elementary received a School Performance Score of 111.4, the second highest in the study. While Prairie had the lowest percentage of students taught by highly qualified teachers, it had the second lowest rates of in- and out-of-school suspension among the study schools.

Methods

In order to address the stated research goals of this study, three phases of research were undertaken (Figure 5.5). In Phase I, approximately 200 students were screened for ADHD using the Vanderbilt ADHD Teacher Rating Scale (VADTRS). The risk of a child developing ADHD
was assessed, and the students were separated into categories: those at low risk for developing ADHD, those at high risk for developing ADHD, and those who had already been diagnosed with ADHD. In Phase II, a series of three interviews was conducted with caregivers of low risk, high risk, and diagnosed children. Additionally, the children’s teachers were asked to complete additional evaluations concurrently with the second and third caregiver interviews. In Phase III, kindergarten, first, and second grade teachers at two study schools—Prairie Elementary and Live Oak Elementary—were interviewed. In the following paragraphs, the methods used in each of the three study phases are explained in greater detail.

**Figure 5.5: Research design of project by phase**

**Phase I**

**Sampling:** Beginning in February 2010, permission to conduct research with the Lafayette Parish School System was sought. Once permission was obtained, individual schools were recruited for project participation. Schools form a cluster or “natural group” of children in
the community (Bernard 2006:157). In Lafayette, school divisions also help identify differences in neighborhood socioeconomic status, a key variable in this research. Out of the nine elementary schools contacted for possible project participation, four schools agreed to participate. These schools span the socioeconomic distribution of the city and include a school catering primarily to low socioeconomic status students, two schools with predominantly middle class students, and a school with mostly high socioeconomic status students.

Participants were selected for the project based on three dimensions: socioeconomic status (based on school attendance), age, and risk of developing ADHD. Students in kindergarten and first grade were chosen as study participants because this group includes the median age of diagnosis for most children, age 7 (NIMH 2009), and should maximize the number of children who were diagnosed with ADHD during the study period.

The primary objective of this project was to examine the development of ADHD among elementary students. Therefore, students who had not been previously diagnosed with ADHD were recruited using a combination of cluster and purposive sampling techniques. Diagnosis in this project is defined in the same way as that used in the 2003 and 2007 National Survey of Children’s Health ("Has a doctor or health professional ever told you that [child] has attention-deficit disorder or attention-deficit/hyperactivity disorder, that is, ADD or ADHD?"). Students already diagnosed with ADHD were not directly recruited for this project as requested by school officials. A few consent forms were collected during Phase 1 (see the following section) on which caregivers indicated both that they wished to participate and that their children had already been diagnosed with ADHD.

To assess students’ risk of developing ADHD, parental consent was obtained to conduct ADHD screening between March and May 2010. The students were screened for ADHD by
their classroom teachers using the Vanderbilt ADHD Diagnostic Teacher Rating Scale (VADTRS), a scale similar to those already in use by area schools. The 35-item scale assesses a child’s risk for four disorders: ADHD, primarily inattentive type; ADHD, primarily hyperactive type; a combination of oppositional defiant and conduct disorder (indicated in subsequent chapters as ODCD); and anxiety (denoted ANX in the following chapters). It also asks teachers to rate how well the children are performing in school, following classrooms rules, and interacting with others. The VADTRS produces a continuum of scores so that a student can be classified as more or less likely to develop ADHD.

Based on their VADTRS results, the students were divided into groups: those who met DSM criteria for ADHD hyperactive type, ADHD inattentive type, or ADHD combined but were undiagnosed (high risk; 38 students in four schools) and those who did not (low risk, 151). Approximately 30 parents of high risk students were approached for participation until 20 participants were secured. Then an equal number of caregivers of children considered to be at low risk of developing ADHD were also randomly selected and approached for project participation (approximately 40 were approached); if a child’s caregiver declined to participate in the project, another student from the low risk category was randomly chosen until participation from 20 low risk students was secured. Although the caregiver consent form (see Appendix A) specified that the project was only for those students who were not diagnosed with ADHD, several parents (n=22) responded that their children had been diagnosed. Eleven of these parents agreed to participate further in the project. Ultimately, this sampling procedure created three subgroups of students: low risk or control, high risk without an ADHD diagnosis, and those diagnosed with ADHD. In all, caregivers of 51 students participated in Phase I of the project.
Phase II-A: Caregiver Interviews

As mentioned previously, the purpose of this research was to better understand which children develop ADHD and how families’ willingness to accept or adopt a diagnosis of ADHD can be better understood. Three hypotheses were proposed to answer these questions: (1) among all children in the study, parents who are exhibiting greater psychosocial and emotional stress will have children who exhibit more ADHD symptoms and will be more likely to adopt a diagnosis of ADHD for their children than those with less stress; (2) among children with higher socioeconomic status, ADHD-related behaviors and diagnosis will increase as academic, athletic, or other status competition increases; and (3) among children with lower socioeconomic status, symptoms and diagnosis will increase as familial pressure for additional economic resources increases.

To test these hypotheses, 51 caregivers were asked to participate in a series of three interviews between May 2010 and May 2011. The content of these interviews is described in further detail below.

Caregiver Interview I: The first round of caregiver interviews was conducted between May and August 2010. Before this interview began, each caregiver was read the caregiver consent form (Appendix B). All caregivers agreed to participate in the interviews after hearing what was asked of them from the study. During Interview I, nine types of information were collected: (1) demographic information, (2) the Vanderbilt ADHD Parent Rating Scale (VADPRS), (3) the Nottingham Health Profile, (4) job stress, (5) financial resources, (6) perceived stress, (7) perceived status competition at child’s school, (8) information pertaining to an explanatory model of ADHD, and (9) views of appropriate parent behavior with respect to school performance.
1. **Demographics.** Basic demographic information was gathered about each caregiver. This included age, gender, and ethnicity. It also included the caregiver’s marital status (“Are you currently married?”) and work status (“Are you currently working?” and “If so, how many hours a week?”). Educational attainment was measured by asking the highest grade of school completed.

2. **Financial Resources.** After the caregivers’ demographic information was collected, they were asked if they were receiving any sort of assistance, including Medicaid, Child Support, Food Stamps, or disability (Social Security or Supplemental Security Income). Then they were asked if there was someone they could borrow money from if they had trouble paying their bills; a “yes” or “no” answer was recorded for this question. At the end of the interview, each caregiver was asked to tell how much money their family earned in a year by identifying the income bracket, divided into $20,000 increments, to which they belonged.

3. **VADPRS.** Like the VADTRS, the VADPRS asks caregivers to rate their children (on a scale from 0-3; “never” to “all the time,” respectively) on 47 behaviors relevant to four childhood disorders, including ADHD (35 behaviors are identical to those found on the VADTRS). Questions pertaining to ADHD are divided into inattention and hyperactivity (like the VADTRS), and risk of oppositional defiant and conduct disorder (ODCD) and anxiety and depression (ANXDEP) are assessed as well. The last portion of the VADPRS asks caregivers to rate their children’s classroom performance (e.g., “How well is your child doing in math?”) and behavior (e.g., “How would you rate your child’s relationships with his or her peers?”). This section is on a scale of 1 to 5 with 1 representing below average performance and 5 representing above average performance ($\alpha = 0.93$). The data collected from the VADPRS can be used like
the VADTRS to assess where along the continuum of risk of developing ADHD a child lies; the risk scores were used in data analysis, particularly in comparison to teacher ratings.

4. *Nottingham Health Profile.* The Nottingham Health Profile is appropriate for measuring general perceived health status in a community, is quick, and can measure changes in health status over time (Hunt, McEwen, and McKenna 1985). Participants are asked to rate their perceived health status for 38 different statements across six dimensions: three questions are asked about energy level (e.g., “I’m tired all the time.”), eight questions asked about pain (e.g., “I have pain at night.”), nine questions are asked about emotional reaction (e.g., “I feel lonely.”), five questions are asked about sleep (e.g., “I lie awake for most of the night.”), five questions are asked about social isolation (e.g., “I feel there is nobody that I am close to.”), and eight questions are asked about physical abilities (e.g., “I’m unable to walk at all.”). The participants are asked to first respond to the statements by saying whether they agree or disagree with them; then, based on their responses, they are asked whether they agreed or disagreed a little or a lot with each statement. These responses can be used dichotomously or as a 4-point Likert scale in analysis. Reliability of the scale in this sample was 0.92.

5. *Status Competition.* One of the central hypotheses to this research is that caregivers may be more likely to accept a diagnosis for ADHD for their children if they believe it will benefit them as they compete in school. Caregivers’ perceptions of status competition at their children’s schools were evaluated using a series of 7 Likert scales (Table 5.1). Caregivers were asked to agree or disagree with each statement before qualifying their answers by responding whether they agreed or disagreed a little or a lot.
Table 5.1: Scale measuring parents’ perceptions of status competition at school

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<tbody>
<tr>
<td>1.</td>
<td>The activities my child does now will affect if he or she goes to college.</td>
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<tr>
<td>2.</td>
<td>I feel pressure to make sure my child is learning outside of school.</td>
</tr>
<tr>
<td>3.</td>
<td>I believe my child is not learning enough in school to prepare him or her for the future.</td>
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<tr>
<td>4.</td>
<td>My child’s school is too competitive.</td>
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<tr>
<td>5.</td>
<td>I worry that if I let my child just “be a child,” he or she will not do as well in school as the other children.</td>
</tr>
<tr>
<td>6.</td>
<td>Other parents at my child’s school put their children in activities out of school to make them better students.</td>
</tr>
<tr>
<td>7.</td>
<td>It is important to give my child a leg up at school by giving him or her extra activities, books, or lessons.</td>
</tr>
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6. Parent Behavior and School Performance. The first open-ended portion of the interview asked parents to describe what sorts of things they do with their children to make sure they are doing well in school. Additionally, they were asked what they thought other parents were doing with their children and to mention if any parents were doing something they considered “different” from them. These questions were included because it was believed they might elaborate on the ideas of motherhood surveillance mentioned earlier in this dissertation.

7. Job Stress. The 23-item Effort-Reward Imbalance instrument measures how the efforts an individual puts into a job are balanced by the perceived rewards of work. Effort is operationalized in a series of 5 questions (“I have constant time pressure due to a heavy workload”) while reward is a composite measure calculated from 11 questions from three different dimensions: esteem (“I receive the respect I deserve from my superiors”), promotion potential (“Considering all my efforts and achievements, my work prospects are adequate”), and job security (“My job security is poor”) (Siegrist et al. 2004). If the ratio between effort and reward is high, the result is job strain, which could disrupt parenting practices (Mann and MacKenzie 1996). Six additional questions included in the Effort-Reward Imbalance instrument measure one’s level of overcommitment, defined as the “inability to withdraw from work
obligations” and seen as potentially harmful to the individual (Siegrist et al. 2004:1488). Finally, one question asks about the physical demands of the employee’s work environment. Like the Nottingham Health Profile, participants were asked to agree or disagree with each statement and then to qualify their responses by responding whether they agreed or disagreed a little or a lot. Reliability for this scale was 0.60 when the questions 3 (“I have experience of I expect to experience an undesirable change in my work situation”), 14 (“My job security is poor”), 18 (“When I get home, I can easily relax and ‘switch off’ work”), 19 (“I am treated unfairly at work”), and 22 (“My job promotion prospects are poor”) were removed from analysis.

8. Perceived Stress. The Perceived Stress Scale contains 14 items related to perceived stress (“In the last month, how often have you felt nervous and ‘stressed?’”), coping (“In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?”), and locus of control (“In the last month, how often have you felt that you were unable to control the important things in your life?”) over the past month. Perceived stress is a theoretically interesting variable to include in this research because it could play a role in the development of behavioral disorders (Cohen, Kamarck, and Mermelstein 1983). Caregivers were asked to rate their answers on a 5-point Likert scale ranging from “never” to “very often.” The reliability for the scale in this sample was 0.88.

9. Models of ADHD. In second open-ended portion of the interview, parents were asked to describe what they knew about ADHD. This included its signs and symptoms, treatments, and causes. Caregivers were also asked to talk about any patterns they saw in diagnosis (e.g. by family type, gender, ethnicity, age). They were also asked about how their home lives might be affected—and how their roles as parents might change—if their children were diagnosed with ADHD. Because this section of the interview was open-ended, questions often digressed from
the interview schedule found in Appendix C. Caregivers often commented on what role they thought schools should play before, during, and after diagnosis. Views on medication and the issue of stigma related to ADHD were also discussed with many parents.

**Caregiver Interview II:** The second caregiver interview took place between October and December 2010. Several measures were repeated to track changes over the previous months: demographic and financial resource measures, the Nottingham Health Profile, the VADPRS, the Perceived Stress Scale, and the Effort-Reward Imbalance inventory (measuring job strain). Two new measures were added to better understand what caregivers considered to be “normal” childhood behavior and the qualities of a good home life. A final measure, the Superwoman Scale, was also included.

1. “Normal” Child Behavior. Following the first interview, several parents echoed the views of some ADHD researchers who find that the disorder’s symptoms are ambiguous (Furman 2008). Because no established, empirically-based range of childhood behavior exists, it can be challenging to determine if children are suffering from a disorder or if they fall within a “normal” range of childhood behavior and are being “typical kids.” I hypothesized that parents may differ in their opinions of what is considered to be appropriate behavior for children in this age bracket to exhibit. A 20-item scale was created using the same behaviors listed for ADHD (both inattention and hyperactivity) found on the VADTRS and VADPRS (Table 5.2). Caregivers were asked to tell how often they expected a first or second grader to be able to do each task. The 5-point Likert scale ranged from “never” (1) to “always” (5). The reliability of the scale for this research was 0.72.
Table 5.2: Establishing normal behavior

<table>
<thead>
<tr>
<th>Question: How often should a child be expected to...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do school and homework without making careless mistakes?</td>
</tr>
<tr>
<td>2. Stay focused on an activity or task?</td>
</tr>
<tr>
<td>3. Listen when spoken to?</td>
</tr>
<tr>
<td>4. Finish his/her school work?</td>
</tr>
<tr>
<td>5. Be organized with tasks or activities?</td>
</tr>
<tr>
<td>6. Sit and do an activity that may be boring?</td>
</tr>
<tr>
<td>7. Keep track of things needed for school like books or school assignments?</td>
</tr>
<tr>
<td>8. Pay attention without getting distracted?</td>
</tr>
<tr>
<td>9. Remember to do daily activities like brushing teeth?</td>
</tr>
<tr>
<td>10. Sit still without fidgeting?</td>
</tr>
<tr>
<td>11. Do what he or she is told by the teacher?</td>
</tr>
<tr>
<td>12. Be hyper?</td>
</tr>
<tr>
<td>13. Play games or do activities quietly?</td>
</tr>
<tr>
<td>14. Be ‘always on the go’?</td>
</tr>
<tr>
<td>15. Talk too much?</td>
</tr>
<tr>
<td>16. Blurt out answers to questions?</td>
</tr>
<tr>
<td>17. Be impatient?</td>
</tr>
<tr>
<td>18. Interrupt a conversation?</td>
</tr>
<tr>
<td>19. Play outside?</td>
</tr>
<tr>
<td>20. ‘Act out’?</td>
</tr>
</tbody>
</table>

2. Home Life. Some parents suggested that the quality of home life may affect whether or not a child was diagnosed with ADHD during the first interview. Several open-ended questions were created to better elicit caregivers’ conceptions of a “good home life,” including which things should and should not be part of it. The final question in this section asked what kept people from achieving a good home life.

3. Superwoman Scale. The Superwoman Scale was originally a 27-item inventory designed to measure five things: “(a) adherence to sociocultural standards of attractiveness, (b) adherence to masculine and (c) feminine traits, (d) independence in adult attachment relationships, and (e) greater achievement motivation” (Lochner 1999:v). It is a measure of how well women are achieving excellence in masculine (professional) and feminine (childrearing, interpersonal relationships, personal appearance) realms. As mentioned previously, motherhood
is under increasing scrutiny. Intensive mothering posits that in order to produce perfect (or nearly perfect children), which should be the goal of all mothers, mothers must be highly involved in their children’s lives. It is hypothesized that a woman’s hypervigilance will include intensive watchfulness over children and could affect ADHD diagnosis. It is unclear how this vigilance may affect status competition; a “superwoman” mother may reject an ADHD diagnosis altogether as a sign of her child’s imperfection or accept it because medication may offer a promise of “normalcy” in the future. The scale used here has been trimmed to 15 questions (Table 5.3). Cronbach’s $\alpha$ was 0.62 for this scale when questions 15 (“I would be embarrassed by public recognition of achievement”) and 7 (“I don’t think it is possible for a person to reach excellence in all aspects of life”) were deleted. Each caregiver was read a statement and asked if she agreed or disagreed with the statement; then she was asked if she agreed or disagreed a little or a lot with each answer.

<table>
<thead>
<tr>
<th>Table 5.3: Superwoman Scale (adapted from Stracuzzi 2005)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Getting the best assignments and fast promotions at work is important to me.</td>
</tr>
<tr>
<td>2. I would be disappointed if my children did not qualify for ‘gifted and talented’ programs.</td>
</tr>
<tr>
<td>3. While it’s hard for most people to do, I think I can have a strong family life and a very successful career.</td>
</tr>
<tr>
<td>4. I would never consider a career that doesn’t automatically command respect from strangers.</td>
</tr>
<tr>
<td>5. Being known as a prominent person in the community is important to me.</td>
</tr>
<tr>
<td>6. I get very upset with myself if I forget something I’m supposed to do.</td>
</tr>
<tr>
<td>7. I don’t think it is possible for a person to reach excellence in all aspects of life.</td>
</tr>
<tr>
<td>8. I feel I must socialize on the weekends even if I’m tired.</td>
</tr>
<tr>
<td>9. Being told that I’m great at everything I do would be an incredible compliment to me.</td>
</tr>
<tr>
<td>10. I think it is very important that parents provide multiple opportunities for their children in terms of dance, art, and music classes.</td>
</tr>
<tr>
<td>11. As a parent, I try to attend all of the school functions of my children.</td>
</tr>
<tr>
<td>12. I don’t care whether people notice things I do well.</td>
</tr>
<tr>
<td>13. Respect from coworkers and peers is very important for my self-esteem.</td>
</tr>
<tr>
<td>14. I model myself after other people who ‘have it all’—successful marriages, careers, and great kids.</td>
</tr>
<tr>
<td>15. I would be embarrassed by public recognition of achievement.</td>
</tr>
</tbody>
</table>
Caregiver Interview III: Only three measures were repeated on the final caregiver interview, conducted between March and May 2011. As before, demographic information and financial resource questions were double checked. The VADPRS was also administered a final time. Scores for the Nottingham Health Profile, the Effort-Reward Imbalance Inventory, and the Perceived Stress Scale were not collected during Interview III. Instead several new measures, most of which dealt with parenting, were introduced. Parental involvement, parents’ beliefs regarding the origins of children’s problems, and parenting satisfaction were measured. Beliefs about ADHD etiology were also examined. Finally, caregivers were asked about possible social factors that could influence the development of ADHD.

1. Parental Involvement. Based on the first and second interview, it was believed that certain types of parenting may be more problematic in terms of a child’s development of ADHD. Caregivers suggested that parents who were less involved with their children may be more likely to adopt a diagnosis of ADHD for their children. To test this hypothesis, a 14-item scale published in Stracuzzi (2005) and adapted from McNeal (1999) was added in its entirety to the interview schedule (\( \alpha = 0.65 \), Table 5.4). It measured parental involvement along 4 dimensions: involvement at school (“How often do you volunteer in your child’s classroom?”), monitoring (“How often do you limit how much TV your child can watch?”), parent-child interactions (“How often do you talk with your kids about what’s going on at school?”) and leisure activities (“How often do you take your children on outings?”). This scale allows parents to rate their involvement on a scale of 1 (“never do this with my child”) to 5 (“always do this with my child”).
Table 5.4: Questions measuring parental involvement (Stracuzzi 2005)

<table>
<thead>
<tr>
<th>How often do you…</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Volunteer in your child’s classroom (field trips, parties, etc.)?</td>
</tr>
<tr>
<td>2. Attend parent-teacher organization meetings?</td>
</tr>
<tr>
<td>3. Take your children on outings?</td>
</tr>
<tr>
<td>4. Eat family meals together?</td>
</tr>
<tr>
<td>5. Spend time playing with our child?</td>
</tr>
<tr>
<td>6. Limit how much TV your child can watch?</td>
</tr>
<tr>
<td>7. Limit your child’s time at the computer?</td>
</tr>
<tr>
<td>8. Read to your child or read with your child?</td>
</tr>
<tr>
<td>9. Do homework with your child?</td>
</tr>
<tr>
<td>10. Talk with your kids about what they’re doing in school?</td>
</tr>
<tr>
<td>11. Speak with your children about their interests and outside activities?</td>
</tr>
<tr>
<td>12. Talk with your kids about relationships with friends and classmates?</td>
</tr>
<tr>
<td>13. Volunteer in your child’s school?</td>
</tr>
<tr>
<td>14. Speak with your child about his/her education and future goals?</td>
</tr>
</tbody>
</table>

2. Parenting Beliefs. This 8-item inventory was designed to understand how parents attribute responsibility for children’s development and/or problems (Table 5.5, Stracuzzi 2005).

Development can be seen as innate or beyond parents’ control (“I believe that a child’s personality and intelligence is there from birth”) or influenced by parenting (“Parents are primarily responsible for how their children turn out”). Caregivers were asked to agree or disagree with each statement and then to state whether they agreed or disagreed a little or a lot.

Table 5.5: Questions measuring belief about responsibility for child’s actions (Stracuzzi 2005)

| 1. I believe that a child’s personality and intelligence is there from birth. |
| 2. Parenting 'style’ does not make much difference as long as children are loved. |
| 3. I believe that parenting is a job. Evidence of a job done well or done poorly can be seen in the actions and characteristics of the child. |
| 4. There are no ‘bad’ children; badly behaved children are actually the result of bad parenting. |
| 5. Parents are primarily responsible for how their children turn out. |
| 6. No matter how parents may try, they actually have very little influence over their children’s temperament, personality traits, and/or intelligence. |
| 7. Mothers are held more responsible for how their children turn out than fathers. |
| 8. Fathers are held more responsible for how their children turn out than mothers. |
3. **Parenting Satisfaction.** Fifteen of Stracuzzi’s (2005) 22 items were included to measure parenting satisfaction ($\alpha = 0.58$, Table 5.6). Satisfaction was broken into two subdomains: general satisfaction (“Having children is worth all the sacrifices”) and parental competence (“I feel I am good at resolving conflict with my child”). Caregivers were asked to agree or disagree with each statement and then to qualify their answer by saying whether they agreed or disagreed a little or a lot.

<table>
<thead>
<tr>
<th>Table 5.6: Questions measuring parental satisfaction (Stracuzzi 2005)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel I am good at resolving conflict with my child.</td>
</tr>
<tr>
<td>2. I feel I am a positive role model for my child.</td>
</tr>
<tr>
<td>3. I wish I could do a better job as a parent.</td>
</tr>
<tr>
<td>4. I feel I am a better parent than most other parents.</td>
</tr>
<tr>
<td>5. I feel proud of the job I have done as a parent.</td>
</tr>
<tr>
<td>6. I often feel unsure of myself.</td>
</tr>
<tr>
<td>7. Having children is worth all the sacrifices.</td>
</tr>
<tr>
<td>8. I get a great deal of fun and enjoyment from being a parent.</td>
</tr>
<tr>
<td>9. Raising children is not as rewarding as I thought it would be.</td>
</tr>
<tr>
<td>10. In general, as a parent, I am happy most of the time</td>
</tr>
<tr>
<td>11. Children are a large burden for me.</td>
</tr>
<tr>
<td>12. Having children to care for is a lot of fun.</td>
</tr>
<tr>
<td>13. The rewards of being a parent easily outweigh the effort and hard work.</td>
</tr>
<tr>
<td>14. You know, it’s hard being stuck home with children.</td>
</tr>
<tr>
<td>15. Parenthood is the most important aspect of my life.</td>
</tr>
</tbody>
</table>

4. **ADHD Etiology.** During Interview I, caregivers were asked to share their understandings of ADHD, especially how they believed the disorder developed. These interviews produced several possible causes for ADHD. ADHD could be caused by one’s genetics (“I believe ADHD is caused by ‘something inside them’” and “I believe ADHD is genetic”), overstimulation (“I believe ADHD is caused by children being too stimulated” and “I believe ADHD is caused by watching too much television”), bad parenting (“I believe ADHD is caused by bad parenting” and “I believe ADHD is caused by parents not paying enough attention to their children”) food (“I believe ADHD is caused by what children eat”), problems during
pregnancy (“I believe ADHD is caused by something that happens during pregnancy” and “I believe ADHD is caused by smoking or drinking before a child is born”), or social change (“I believe ADHD is caused because the world moves too fast nowadays”). In all, 10 items were included on the scale ($\alpha = 0.70$). Caregivers were asked to agree or disagree with each sentence before qualifying their responses by stating whether they agreed or disagreed a little or a lot.

5. Social Factors Affecting ADHD Development. As indicated in the section describing the measure for parental involvement above, it was believed by at least some caregivers that certain social factors—namely home life and parental involvement—could affect ADHD development (Table 5.7). To test this hypothesis—that is, that people believe certain social factors can influence the development of ADHD in children (but not necessarily their own)—a 14-item scale was created to assess how likely it would be that a child would develop ADHD if he or she lived in each situation (“How likely is it that children will develop ADHD if they come from a home that has no structure?” and “How likely is it that children will develop ADHD if the person who takes care of them is involved at school?”). Caregivers were asked to respond on a scale of 1 to 5, 1 being that each situation will have no effect on whether or not a child develops ADHD and 5 being that the child will definitely get ADHD in that situation.

While these questions were included in the third interview, they were not used in subsequent analysis. The questions were tested on a few parents during the initial part of the third interview. Based on their responses, the questions seemed to be an appropriate way to get at the information parents had described previously but in other ways. As the interview phase progressed, however, only about half of the caregivers seemed to truly understand what was being asked of them.
Table 5.7: Questions measuring parents’ perceptions of the impact of social environment on ADHD diagnosis

<table>
<thead>
<tr>
<th>Question</th>
<th>Likelihood of ADHD Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. They come from a single-parent home?</td>
<td></td>
</tr>
<tr>
<td>2. The person who takes care of them is not involved at school?</td>
<td></td>
</tr>
<tr>
<td>3. They come from a home where there is not a lot of discipline?</td>
<td></td>
</tr>
<tr>
<td>4. The person who takes care of them knows how to raise children?</td>
<td></td>
</tr>
<tr>
<td>5. They come from a home that has a set routine?</td>
<td></td>
</tr>
<tr>
<td>6. The person who takes care of them is concerned with what happens at</td>
<td></td>
</tr>
<tr>
<td>school?</td>
<td></td>
</tr>
<tr>
<td>7. They come from a home that is structured?</td>
<td></td>
</tr>
<tr>
<td>8. The person who takes care of them is uneducated about raising children?</td>
<td></td>
</tr>
<tr>
<td>9. The person who takes care of them is there for the children when they need it?</td>
<td></td>
</tr>
<tr>
<td>10. They come from a home that has no structure?</td>
<td></td>
</tr>
<tr>
<td>11. They come from a home with two parents?</td>
<td></td>
</tr>
<tr>
<td>12. The person who takes care of them is very busy?</td>
<td></td>
</tr>
<tr>
<td>13. They come from a home where there is no routine?</td>
<td></td>
</tr>
<tr>
<td>14. They come from a home where they get corrected?</td>
<td></td>
</tr>
</tbody>
</table>

Phase II-B: Teacher Evaluations

The study participants’ 2009-2010 classroom teachers were asked to complete the initial VADTRS screening for students between March and May 2010. In order to track changes in the students’ behaviors over time, their 2010-2011 classroom teachers were also asked to evaluate their behavior using the VADTRS. These evaluations occurred twice during the 2010-2011 school year and were completed concurrently with Caregiver Interview II (October-December 2010) and Caregiver Interview III (March-May 2011).

Home Life Questionnaire. During the third VADTRS evaluation, teachers were asked to complete an additional form that gauged their perceptions concerning each study participant’s home life (“How much structure does the child have at home?”) and parental involvement (“How often is the child’s mother involved in his/her life?”). Teachers were asked to rate their answers on a scale of 1 to 5, 1 being “never or none” and 5 being “always or a lot.” As mentioned previously, some caregivers stressed the importance of a good home life and involved parents to preventing the development of ADHD. During teacher interviews (Phase III, see below),
teachers also mentioned the value of parent involvement and a good home life to education. Teachers’ perspectives on their students’ home lives were gathered so that they could be compared with VADTRS scores during data analysis. In addition to the 11 questions that appear in Table 5.8, teachers were also asked to identify any other person who was involved in the child’s life, who the person was, and how involved he or she was.

<table>
<thead>
<tr>
<th>Table 5.8: Questions measuring teachers’ perceptions of quality of student’s home life</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How supportive is the parent/guardian of the child?</td>
</tr>
<tr>
<td>2. How supportive is the parent/guardian of you, the teacher?</td>
</tr>
<tr>
<td>3. How often do the child’s parents/guardians help with homework?</td>
</tr>
<tr>
<td>4. How often do the child’s parents/guardians come to school functions?</td>
</tr>
<tr>
<td>5. How involved is the child’s mother in his or her life?</td>
</tr>
<tr>
<td>6. How involved is the child’s father in his or her life?</td>
</tr>
<tr>
<td>7. How much structure does the child have at home?</td>
</tr>
<tr>
<td>8. How much routine does the child have at home?</td>
</tr>
<tr>
<td>9. How much discipline does the child have at home?</td>
</tr>
<tr>
<td>10. How much negativity is there in the child’s home?</td>
</tr>
<tr>
<td>11. How stable is the child’s home?</td>
</tr>
</tbody>
</table>

**Phase III: Teacher Interviews**

Between Caregiver Interviews II and III, 20 kindergarten, 1<sup>st</sup>, and 2<sup>nd</sup> grade teachers from Prairie and Live Oak Elementary school were interviewed about their work as a teacher, their knowledge of and experience dealing with ADHD in the classroom, and their feelings about students with disabilities. The information included on the interview schedule is detailed in the sections below.

**Demographics.** Teachers were first asked a few basic questions about themselves and their jobs as teachers. Age, gender, and years of teaching experiencing were recorded. The teachers were also asked if they currently had a student with a disability in their classrooms; this was followed by asking them specifically if they had students with ADHD in their classrooms.
“Normal” childhood behavior. One goal of Caregiver Interview II was to establish levels of behavior appropriate for children in kindergarten, 1st or 2nd grade. The same 20-item scale used for Caregiver Interview II was included on the Teacher Interview ($\alpha = 0.79$). This scale used the same behaviors listed for ADHD (both inattention and hyperactivity) found on the VADTRS and VADPRS. Like caregivers, teachers were asked to tell how often they expected kindergarten, first or second graders to be able to do each task. The 5-point Likert scale ranged from “never” (1) to “always” (5).

Classroom Setting. Two open-ended sections were included on the teacher interview. The first asked teachers to describe the classroom, their students, and their jobs as teachers. Questions included information about the classroom setting (“Can you walk me through what a typical school day is like in your classroom?”), teacher expectations for their students (“Can you describe a typical kindergarten, 1st or 2nd grader to me?”), and their challenges (“What are your biggest problems or challenges as a teacher?”). These questions were designed to understand typical classroom life and expectations of students from teachers.

Knowledge of ADHD. The second open-ended question asked teachers to share what they knew about ADHD. Similar to Caregiver Interview I, teachers were asked to describe the signs and symptoms, treatments, and causes of the disorder. They were also asked if ADHD was more common among certain types of families or children.

Job Stress. Teachers were administered the same 23-item Effort-Reward Imbalance instrument used in Caregiver Interview I ($\alpha = 0.61$). This instrument measures how much the efforts an individual puts into a job are balanced by the perceived rewards of work. The Effort-Reward Imbalance instrument also measures one’s level of overcommitment. Teachers were
asked to agree or disagree with each statement and then to qualify their responses by responding whether they agreed or disagreed a little or a lot.

**Teaching Children with Disabilities.** The final section of the teacher interview was designed to examine teachers’ experiences with disabled students in the classroom (Table 5.9). Many of the scale’s 11 items focused on whether or not teachers believed they had adequate skills, resources, time, and training to handle students with disabilities in their classrooms (α = 0.59). They were also asked whether or not the school was doing enough to help students with disabilities. Teachers were asked to agree or disagree with each statement and then to qualify their responses by responding whether they agreed or disagreed a little or a lot.

<table>
<thead>
<tr>
<th>Table 5.9: Questions measuring teachers’ experiences with teaching students with disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have access to support services at school to help me teach children with disabilities.</td>
</tr>
<tr>
<td>2. I do not have enough class time to teach students with disabilities.</td>
</tr>
<tr>
<td>3. I think I can identify children who have a disability.</td>
</tr>
<tr>
<td>4. Have more in-service training on the needs of students with disabilities would not be helpful to me.</td>
</tr>
<tr>
<td>5. I have enough access to teaching materials designed for disabled children.</td>
</tr>
<tr>
<td>6. I have enough time to prepare special instructions or activities for disabled children.</td>
</tr>
<tr>
<td>7. There is a need for more support services for disabled children at my school.</td>
</tr>
<tr>
<td>8. I have the skills as a teacher to teach students with disabilities.</td>
</tr>
<tr>
<td>9. I believe I can adapt my current lesson plans to teach disabled children</td>
</tr>
<tr>
<td>10. I am not confident I could locate extra teaching materials for disabled children.</td>
</tr>
<tr>
<td>11. I feel as though I need additional training to teach the students with disabilities in my class.</td>
</tr>
</tbody>
</table>

**Data Analysis**

The open-ended questions from Phase II-A (Caregiver Interviews 1 and 2) and Phase III (Teacher Interviews), particularly those questions regarding the natural history of ADHD and the behaviors parents and children should exhibit, were transcribed and analyzed qualitatively. Structured portions of all interviews were analyzed quantitatively by coding and entering the
responses into SPSS 17.0. In the following chapters, the qualitative and quantitative data collected are used to accomplish a number of analyses. The first cluster of analyses attempted to establish normalcy in the caregiver-teacher-child microcosm. This meant examining the concept of normal childhood behavior and the expectations of parents and children as understood by parents themselves and their children’s teachers. Next, disorder as it pertains to ADHD was defined. Once disorder was defined, hypothetical risk could be determined. Risk is assessed based on etic (literature-based) and emic (interview-based) models of ADHD. Case studies of several caregivers who struggled with ADHD diagnosis decision-making were included to add depth to the quantitative analyses found here. Finally, all information collected was synthesized to build a model of ADHD risk.

Bivariate analyses were conducted between all major variables; these variables included ADHD (and other disorder) symptom levels as assigned by caregivers and teachers, job stress, health status, work status, marital status, perceived stress, and availability of financial support.

Conclusions

This research was divided into three phases. During the first phase, more than 200 elementary students were initially evaluated for ADHD using the VADTRS. From there, caregivers of a sample of the children were recruited for participation in Phase II-A. This phase included a series of three caregiver interviews that evaluated parents’ beliefs about ADHD, a good home life, and the role of parents at home and school. Caregivers were also asked to evaluate their children’s behaviors using the VADPRS, the parent equivalent to the VADTRS. In Phase II-B, two more teacher evaluations (VADTRS II and III) were collected. In the final
phase, Phase III, teachers were asked to share their thoughts and experiences with ADHD and their jobs as teachers.
Chapter 6: Descriptive Statistics

The purpose of this chapter is to provide basic descriptive statistics for students, caregivers, and teachers. Student descriptives are discussed at three levels: (1) for the entire population of 211 students whose caregivers provided consent for project participation, (2) by school, and (3) for the sample included in the study. Most of the information on the entire student sample comes from the VADTRS 1. The VADTRS 1 asks teachers to list some demographic information about each child (most importantly, the child’s grade), rate their students’ behavior on 35 items across three different disease categories, and evaluate the children’s academic and classroom behavioral performance. Both the VADTRS 1 and Caregiver Interview I demographics are used to describe the study sample. The next section of this chapter describes the caregiver sample based on questions from the initial caregiver interview. Because of the study’s length and multiple interview procedure, several participants were unable to complete one or both of the follow-up interviews (Caregiver Interviews II and III). Therefore, changes in the composition of the study population, specifically in terms of ADHD risk, are discussed. Finally, characteristics of the teacher sample interviewed in Phase III are considered.

VADTRS 1: Entire Population

In total, 211 initial evaluations were collected for students in the four study schools. While 216 caregivers consented to have their children evaluated, five students with ADHD were not evaluated by their teachers. It is believed VADTRS 1 evaluations were not completed for these children because teachers were told prior to the start of the research that the project was
designed to gain valuable insight from students who had not been diagnosed with ADHD. It is possible then that some teachers felt it was unnecessary to evaluate students in their classrooms if they had already been diagnosed with ADHD.

Students were not originally selected for gender. The number of boys and girls whose parents were selected for project participation, however, were roughly equal; in the general population, boys are more likely to be diagnosed with ADHD than girls (Bloom and Cohen 2007).

Demographics by Age and School

Students were recruited from kindergarten and first grade because this age range was slightly younger than and included the median age of diagnosis (7 years old) and was believed to maximize the number of participants who would be diagnosed during the study period. Approximately 42.2% of students evaluated were in kindergarten.

Students were also recruited from four different elementary schools around the city in order to maximize the socioeconomic diversity of the sample. Prairie Elementary comprised the largest percentage of the students evaluated (35.1%) followed by Live Oak Elementary (28.4%) and Ernest Gallet Elementary (27.0%). Students from J. W. Faulk represent the smallest portion of evaluated students (9.5%). After agreeing to have her school participate in the study, the principal for J.W. Faulk cautioned that historically, parent participation at the school was low. Letters outlining the project and including the consent form were sent home to parents at the school twice; I also made several trips to the school to make sure that evaluations for students whose consent forms had been returned were completed.
Assessment of Risk

Out of the 211 children evaluated, caregivers of 22 children (or 10.4%) reported that they had been told by a doctor or health professional that their children had ADHD (based on a question taken directly from the National Survey of Children’s Health). While lower than the rate of ADHD published for the state of Louisiana for 2007 (14.2%, Visser et al. 2010), this is expected because students who had not already received a diagnosis of ADHD were specifically recruited for this project.

According to DSM criteria, students must exhibit at least six out of nine symptoms for at least one subtype to be diagnosed with ADHD. The same diagnosis criterion is used here. Although the VADTRS uses a 4-point Likert scale to measure how often a child behaves in a particular way, it can be used to approximate the DSM by dichotomizing the scores. A child is said to exhibit a symptom if he or she is given a score of 2 (“often”) or 3 (“very often”) while scores of 0 (“never” does a particular behavior) or 1 (“occasionally”) indicate the child does not display the symptom. Nearly 21% of children who had never been diagnosed with ADHD met DSM criteria for ADHD Predominantly Inattentive Type (known below as “inattention), ADHD Predominantly Hyperactive-Impulsive type, or both types. This figure is based on 184 evaluations; 5 evaluations lacked sufficient information to assess ADHD risk.

ADHD Subtypes

As mentioned above, the VADTRS measures two subtypes of ADHD: inattention and hyperactivity. The maximum symptom score for each subscale is 27 (minimum is 0) with higher numbers signifying greater ADHD symptom levels. The lowest possible score one could receive and meet diagnostic criteria for either ADHD subtype is 12. In Tables 6.1 and 6.2 below, teacher-reported symptoms are reported for all students, for those without ADHD, and for
students with ADHD by subtype. As expected, students with ADHD have symptom levels higher than students without ADHD. The difference in mean reported scores is most pronounced for inattention; in fact, the mean reported behavior score for hyperactivity does not meet DSM criteria for diagnosis. A total of 38 students (18% of 205 cases) met DSM criteria for inattention. Twenty-six (or 12.3% of 210 cases) met DSM criteria for hyperactivity. Only 11 children met criteria for ADHD Combined type (meeting criteria for both inattention and hyperactivity).

Table 6.1: Teacher-reported symptoms of inattention, VADTRS 1

<table>
<thead>
<tr>
<th>Reported Behavior Scores</th>
<th>All Students (n = 205)</th>
<th>Students without ADHD (n = 185)</th>
<th>Students with ADHD (n = 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7.59</td>
<td>6.95</td>
<td>13.50</td>
</tr>
<tr>
<td>Median</td>
<td>5.00</td>
<td>4.00</td>
<td>14.50</td>
</tr>
<tr>
<td>Range</td>
<td>27 (0-27)</td>
<td>26 (0-26)</td>
<td>27 (0-27)</td>
</tr>
</tbody>
</table>

Table 6.2: Teacher-reported symptoms of hyperactivity/impulsivity VADTRS 1

<table>
<thead>
<tr>
<th>Reported Behavior Scores</th>
<th>All Students (n = 210)</th>
<th>Students without ADHD (n = 188)</th>
<th>Students with ADHD (n = 22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.62</td>
<td>5.23</td>
<td>8.95</td>
</tr>
<tr>
<td>Median</td>
<td>2.00</td>
<td>2.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Range</td>
<td>27 (0-27)</td>
<td>27 (0-27)</td>
<td>21 (0-21)</td>
</tr>
</tbody>
</table>

Differences in mean reported scores between students with ADHD and students without ADHD were found, but the ranges of reported scores were nearly identical. Students without ADHD had a range of 26 for their teacher-reported inattention scores; students with ADHD had a range of 27, the maximum. For hyperactivity/impulsivity, the range in teacher-reported symptoms was actually higher (range = 27, the maximum score) for students without ADHD than for students with ADHD (range = 21). The range in scores for students diagnosed with ADHD for each subtype begins at 0, which seems to be highly unlikely for a student diagnosed with ADHD. It is quite possible that teachers assessed their ADHD students’ behaviors while
the children were on medication; some teachers even reported that they had never experienced problematic behavior from children who had the disorder. What is not necessarily explainable based on these two tables is why some students who are believed not to have ADHD have scores that would meet diagnostic criteria for the disorder. In fact, students considered to be at high risk of developing ADHD actually had statistically significant higher mean symptom reports for inattention (M=6.39, SD=2.46; t(28.95)=2.313, p <0.05) and hyperactivity (M=4.55, SD=3.31; t(48.03)=2.26, p<0.05) than children who had the disorder (for inattention: M=4.35, SD=3.53; for hyperactivity: M=2.68, SD=2.97)

Other Disorders

In addition to evaluating students for ADHD, the VADTRS also measures risk for a combined measure of Oppositional Defiant and Conduct Disorder (ODCD) and a combined measure of anxiety and depression (ANXDEP). Out of a possible high score of 30 (with higher scores representing higher symptom levels) for the ODCD subscale, the mean for the entire student population was only 2.23; this score dropped to 1.79 when students with ADHD were removed from analysis. When analyzed separately, students with ADHD had a mean reported behavior score of 6.10 for ODCD, roughly three times higher than their peers.

Out of a possible high score of 21 (again, with higher scores representing higher symptom levels) on the ANXDEP subscale, the mean for all students was 1.79. It did not differ significantly for students without ADHD (M=1.68) or for students with ADHD (M=2.68.) Based on these numbers, it appears that students with ADHD suffered more severely from ODCD than ANXDEP. There were few differences among students without ADHD on ODCD and ANXDEP scores.
**Total Behavior Scores**

The raw scores for ADHD (both types), ODCD, and ANXDEP were summed to give each child a total problematic behavior score. Thirty-five items ranked on a 4-point scale (0-3) meant that the maximum behavior score a child could receive was 105 (a higher number indicating increasing severity of symptoms). Table 6.3 (below) shows differences in reported behavior scores among all students, those students who have not received a diagnosis for ADHD, and students with ADHD. As expected, students with ADHD had significantly higher reports for all behaviors than students without ADHD (H(2)=78.16, p < 0.001). Students with ADHD also had a larger range in behavior scores than students without ADHD.

<table>
<thead>
<tr>
<th>Reported Behavior Scores</th>
<th>All Students (n = 199)</th>
<th>Students without ADHD (n = 180)</th>
<th>Students with ADHD (n = 19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>16.71</td>
<td>15.48</td>
<td>28.37</td>
</tr>
<tr>
<td>Median</td>
<td>11.00</td>
<td>10.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Mode</td>
<td>0</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>Range</td>
<td>80 (0-80)</td>
<td>68 (0-68)</td>
<td>78 (2-80)</td>
</tr>
</tbody>
</table>

**Academic Performance**

In addition to assessing risk for three disorders, the VADTRS 1 also includes teachers’ reports of their students’ academic performance. Performance in three areas—reading, math, and written expression—are evaluated on a scale of 1 to 5 (with a maximum score of 15). A higher number indicates better school performance while a lower number indicates poorer school performance. Table 6.4 shows mean academic performance score by school subject. For all three subjects, students without ADHD scored roughly one performance point higher (between “average” and “above average”) than students with ADHD, who scored between “problematic” and “average.” The differences between children without ADHD and children with ADHD were
significant for reading \( t(208)=3.685, p < 0.001 \), math \( t(209)=4.141, p < 0.001 \), and written expression \( t(209)=2.380, p < 0.001 \).

Table 6.4: Mean academic performance score by subject, for students with and without ADHD

<table>
<thead>
<tr>
<th></th>
<th>Mean Academic Performance Score (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students without ADHD(^{\Delta})</td>
</tr>
<tr>
<td>Reading</td>
<td>3.56 (1.17)</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3.61 (1.05)</td>
</tr>
<tr>
<td>Written Expression</td>
<td>3.33 (1.18)</td>
</tr>
</tbody>
</table>

\(^{\Delta}\) For students without ADHD, \( n = 189 \) for math and written expression and \( n = 188 \) for reading

\(^{\ddagger}\) For students with ADHD, \( n = 22 \) for all subjects

In Table 6.5, teacher-reported academic performance scores are compared among all students, those students without ADHD, and ADHD students. The mean academic performance score was significantly higher for students without ADHD than for ADHD students \( t(208)=4.366, p<0.001 \). The range of scores for both groups was identical, however.

Table 6.5: Teacher-reported academic performance scores; VADTRS 1

<table>
<thead>
<tr>
<th>Academic Performance Scores</th>
<th>All Students (( n = 210 ))</th>
<th>Students without ADHD (( n = 188 ))</th>
<th>Students with ADHD (( n=22 ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>10.17</td>
<td>10.50(^{*})</td>
<td>7.32(^{*})</td>
</tr>
<tr>
<td>Median</td>
<td>10.00</td>
<td>10.50</td>
<td>6.00</td>
</tr>
<tr>
<td>Mode</td>
<td>9.00</td>
<td>9.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Range</td>
<td>12 (3-15)</td>
<td>12 (3-15)</td>
<td>12 (3-15)</td>
</tr>
</tbody>
</table>

\(^{*}\)Difference significant at \( p<0.001 \).

Classroom Behavioral Performance

Five questions are included on the VADTRS to measure Classroom Behavioral Performance. Like the section dedicated to Academic Performance, classroom behavior is measured on a 5-point scale (ranging from 1 to 5, maximum score of 25). Higher scores indicate better classroom behavior performance while lower scores indicate poorer performance. Before the Classroom Behavior Performance scores were summed, they were evaluated individually.
Table 6.6 shows the mean score for each question both for students without ADHD and students with ADHD. For all five questions, students without ADHD performed better than their ADHD peers.

<table>
<thead>
<tr>
<th>Classroom Behavior Performance</th>
<th>Mean Classroom Behavior Performance (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students without ADHD</td>
</tr>
<tr>
<td>Relationships with peers</td>
<td>3.67 (0.97)</td>
</tr>
<tr>
<td>Following directions/rules</td>
<td>3.57 (1.14)</td>
</tr>
<tr>
<td>Disrupting class (reverse coded)</td>
<td>3.60 (1.20)</td>
</tr>
<tr>
<td>Assignment completion</td>
<td>3.65 (1.15)</td>
</tr>
<tr>
<td>Organizational skills</td>
<td>3.49 (1.14)</td>
</tr>
</tbody>
</table>

After performance scores were compared between the ADHD and non-ADHD groups by question, the classroom performance scores were summed and compared by group (Table 6.7). Following a similar trend in academic performance, students without ADHD had significantly higher classroom performance scores the students with ADHD ($t(206)=3.867$, $p < 0.001$).

<table>
<thead>
<tr>
<th>Classroom Performance Scores</th>
<th>All Students (n = 208)</th>
<th>Students without ADHD (n = 187)</th>
<th>Students with ADHD (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>17.57</td>
<td>17.99</td>
<td>13.81</td>
</tr>
<tr>
<td>Median</td>
<td>17.50</td>
<td>18.00</td>
<td>13.00</td>
</tr>
<tr>
<td>Mode</td>
<td>15.00</td>
<td>25.00</td>
<td>15.00</td>
</tr>
<tr>
<td>Range</td>
<td>19 (6-25)</td>
<td>19 (6-25)</td>
<td>17(6-23)</td>
</tr>
</tbody>
</table>

**VADTRS 1: By School**

This section takes the results of the VADTRS 1 outlined above for the entire student population and compares them by study school. Because these schools were chosen for their diversity in at least one variable (socioeconomic status), it is possible that variability may exist along other variables as well. In the following four paragraphs, each school’s burden of disease—ADHD, ODCD, and ANXDEP symptom levels—is considered. Then how the schools
compare in terms of performance (academic and classroom behavior as measured by the VADTRS) is discussed. Finally, a few conclusions based on the information presented are given.

**J.W. Faulk Elementary**

Twenty students at J.W. Faulk Elementary were evaluated using the VADTRS. The mean teacher-reported level of all ADHD symptoms—that is, both inattention and hyperactivity—was 18.23 (SD=16.40; for 18 cases). This was the highest of all study schools.

Nearly 37% of the students evaluated met DSM criteria for inattention while 21.1% met criteria for hyperactivity (out of 19 cases for both measures). In all, one third of the evaluated students met DSM criteria for at least one subtype of ADHD (from 18 cases). These percentages were the highest of all study schools. Teacher-reported ODCD symptom level for 19 students was 6.53 (SD=6.97) while ANXDEP symptom level was 2.16 (SD=3.12). J.W. Faulk’s mean ODCD symptoms were the highest out of all study schools; the mean ANXDEP symptom level was the second highest behind Prairie Elementary.

**Prairie Elementary**

A total of 74 students were evaluated from Prairie Elementary. The mean teacher-reported level of all ADHD symptoms was 14.25 (SD = 12.25; for 72 cases). Approximately 18.1% of students met DSM criteria for inattention and 12.2% met criteria for hyperactivity (out of 72 and 74 cases, respectively). In all, 23.6% of students met criteria for one or both subtypes of ADHD (out of 72 cases). Students at the school had a mean ODCD symptom level of 2.19 (SD=4.52) and mean ANXDEP symptom level of 2.33 (SD=3.12; for 69 cases). Prairie’s mean ANXDEP symptom level was the highest of all study schools.
**Live Oak Elementary**

Sixty students from Live Oak Elementary were initially evaluated using the VADTRS. The mean teacher-reported level of all ADHD symptoms for these students was 12.79 (SD=13.93; for 58 cases). More than 17% of students met DSM criteria for inattention, and 15.0% of students met criteria for hyperactivity (out of 52 and 60 cases, respectively). The mean ODCD symptom level was 1.55 (SD=3.62) while the ANXDEP symptom level was 2.00 (SD=2.75; for 60 cases)

**Ernest Gallet Elementary**

Fifty-seven students were evaluated from Ernest Gallet Elementary. The mean teacher-reported level of all ADHD symptoms was 9.93 (SD=12.02, for 56 cases). This is the lowest symptom level for all schools. Only 14.3% of Ernest Gallet’s students met DSM criteria for inattention and 7.0% met criteria for hyperactivity. Again, these are the lowest levels seen among all study schools—as much as 2 to 3 times smaller than the corresponding percentages of students at J.W. Faulk. ODCD and ANXDEP symptom levels were also the lowest seen at any study school: 1.63 (SD=4.07) and 0.91 (SD=2.39), respectively (both for 57 cases).

**Summary**

Table 6.8 shows differences in scores for inattention, hyperactivity/impulsivity, and all disorders combined by school. Schools differed significantly from one another for inattention (H(3)=11.97, p < 0.01) and for all disorders combined (H(3)=12.12, p < 0.01) but not for hyperactivity (H(3)=5.89, p > 0.10). In each category, students at J.W. Faulk reported higher symptoms than students at all other schools. Similarly, Ernest Gallet repeatedly reported the lowest symptom reports for its students. The differences between the schools were statistically
significant for all categories (inattention: $U=378.50$, $p < 0.05$, hyperactivity: $U=374.50$, $p < 0.05$, all disorders: $U=270.00$, $p < 0.01$).

<table>
<thead>
<tr>
<th>School</th>
<th>Inattention Mean (SD)</th>
<th>Hyperactivity/Impulsivity Mean (SD)</th>
<th>All Disorders Combined Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>J.W. Faulk</td>
<td>10.12 (8.86)</td>
<td>6.41 (7.08)</td>
<td>25.06 (22.59)</td>
</tr>
<tr>
<td>n=19</td>
<td>n=19</td>
<td>n=18</td>
<td></td>
</tr>
<tr>
<td>Live Oak</td>
<td>6.88 (7.50)</td>
<td>5.91 (8.06)</td>
<td>16.22 (16.89)</td>
</tr>
<tr>
<td>n=58</td>
<td>n=60</td>
<td>n=58</td>
<td></td>
</tr>
<tr>
<td>Prairie</td>
<td>8.63 (7.12)</td>
<td>5.60 (6.33)</td>
<td>18.50 (15.58)</td>
</tr>
<tr>
<td>n=72</td>
<td>n=74</td>
<td>n=72</td>
<td></td>
</tr>
<tr>
<td>Ernest Gallet</td>
<td>5.75 (7.14)</td>
<td>4.18 (6.01)</td>
<td>12.51 (16.17)</td>
</tr>
<tr>
<td>n=56</td>
<td>n=57</td>
<td>n=56</td>
<td></td>
</tr>
</tbody>
</table>

**Performance**

In addition to measuring symptom level for three disorders, the VADTRS assesses each child’s academic and classroom behavioral performance. A maximum academic performance score is 15 with higher number representing higher academic performance; for classroom behavioral performance, the maximum score is 25 with higher number representing higher classroom performance. The mean scores for all study schools are shown in Table 6.9.

<table>
<thead>
<tr>
<th>School</th>
<th>Academic Performance</th>
<th>Classroom Behavioral Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>J.W. Faulk</td>
<td>N=19</td>
<td>18</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>8.16 (3.02)</td>
<td>15.00 (4.26)</td>
</tr>
<tr>
<td>Prairie</td>
<td>N=74</td>
<td>73</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>9.97 (3.04)</td>
<td>16.29 (4.35)</td>
</tr>
<tr>
<td>Live Oak</td>
<td>N=60</td>
<td>60</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>9.53 (3.56)</td>
<td>17.45 (4.42)</td>
</tr>
<tr>
<td>Ernest Gallet</td>
<td>N=57</td>
<td>57</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>11.75 (3.11)</td>
<td>20.14 (5.06)</td>
</tr>
</tbody>
</table>

* N = Number of Students
Table 6.9 shows that J.W. Faulk has the lowest mean academic performance rating (8.16) while Ernest Gallet has the highest (11.75). Mean classroom behavioral performance scores range from 15.00 for J.W. Faulk to 20.14 for Ernest Gallet. The differences among groups were statistically significant for both academic performance ($H(3)=21.91, p<0.001$) and classroom behavioral performance ($H(3)=26.59, p < 0.001$).

Conclusions

The information presented in this section suggests that students at the four study schools differ in the level of symptoms they exhibit for three disorders, including ADHD. Students at J.W. Faulk consistently had higher number of reported symptoms than the other study schools and had the most children who met DSM criteria for ADHD. In addition to differences in their potential disease burden, students in these four schools experienced differences in performance. Students at Ernest Gallet reportedly performed better academically and in the classroom than at the other study schools.

VADTRS 1: Study Sample

Using information from the initial VADTRS and initial caregiver interviews, this section explores the characteristics of the study sample and then draws comparisons between the sample and the entire student population. First, the process of sample recruitment is detailed. Then characteristics of the sample based on their demographic makeup, disorder risk, and school performance are considered.

Sample Recruitment

From the more than 200 initial evaluations, 51 students were selected for further project participation. Students in the general student population were recruited based on their age and
school (a proxy for socioeconomic status). An additional variable was used to recruit students for the sample population: relative risk of developing ADHD. Based on the results of the VADTRS 1, students could be separated into three risk categories—low risk (control group), high risk but without a diagnosis of ADHD, and those previously diagnosed with ADHD.

Caregivers of half of the high risk students were approached and agreed to participate in the remainder of the study (20 students out of 38 initially evaluated as high risk). An effort was then made to recruit an equal number of low risk students. Because the number of those students who had already received a diagnosis of ADHD was small (n=22), all students who met this criterion were approached for project participation.

Table 6.10 shows the number of student participants by risk category and school. In all, 20 low risk, 20 high risk, and 11 children who had been diagnosed with ADHD were included in the study sample. Although the table shows only 9 students with ADHD were included in the study, two students who had ADHD did participate but were not initially evaluated using the VADTRS 1.

<table>
<thead>
<tr>
<th>School</th>
<th>J.W. Faulk</th>
<th>Prairie</th>
<th>Live Oak</th>
<th>Ernest Gallet</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Risk</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>High Risk</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Diagnosed</td>
<td>3</td>
<td>1</td>
<td>1*</td>
<td>4</td>
<td>9*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>14</strong></td>
<td><strong>12</strong></td>
<td><strong>13</strong></td>
<td><strong>49</strong></td>
</tr>
</tbody>
</table>

* Two students at Live Oak Elementary who had ADHD did not have initial evaluations.

Based on these numbers, students at J.W. Faulk are overrepresented and students from Prairie Elementary are underrepresented in this sample. Students at J.W. Faulk make up 20.4% of the study sample (compared to 9.5% of the initial population) while students from Prairie make up 28.6% (compared to 35.1%). Students from Live Oak and Ernest Gallet made up
24.5% and 26.5% of the study sample, respectively (compared to 28.4% and 27.0% of the initial population, respectively).

**Demographics**

Approximately 35% of the students in the study sample were in kindergarten when the initial VADTRS evaluation was completed. This is slightly lower than the number of kindergarteners in the entire population (42.2% for the entire population). Children in the study ranged in age from 5 to 8 with a mean age of 6.38 years (SD = 0.87).

Only basic demographic information was collected during the initial VADTRS evaluation, and some markers, such as gender and ethnicity, are unavailable for the entire population. The majority of students in the study sample were male (58.8%) and White (60.8%). Caregivers only identified themselves and their children as being White or Black.

**Disorder Risk**

Students in the study sample had higher mean teacher-reported symptoms for ADHD (20.81, SD=14.67), ODCD (5.36, SD=6.82), and ANXDEP (2.29, SD=3.35) than the values reported for the entire student population. It should be noted that among the general population, students with ADHD had higher overall symptom levels. In the study sample, the percentage of students with ADHD is greater than that found in the general student population. This may be driving differences in symptom levels between the study sample and the entire population.

Within the study sample, considerable differences exist among the risk groups for each of the three disorders assessed by the VADTRS. For ADHD, these differences are to be expected based on the recruitment process. The mean level of teacher-reported symptoms for ADHD among the low risk group is 8.25 (SD=8.70) while the mean for the high risk group is 31.25 (SD=10.18). The mean reported symptoms among those already diagnosed with the disorder
decreases to 26.13 (SD=12.82); this drop in symptom level may be related to the use of medications designed to curb these behaviors. A similar pattern is seen within the entire population.

In the study sample, reported problematic behaviors for ODCD and ANXDEP increase as ADHD risk increases (Table 6.11). The mean reported ODCD symptoms for the low risk group is 2.63; for those already diagnosed, it is 10.8. The mean reported ANXDEP symptoms for the low risk group is 1.26; it increases to 4.75 among those diagnosed with ADHD. In the general student population, ODCD symptoms increase nearly five-fold between low and high risk students, but risk decreases once students are diagnosed. For ANXDEP symptoms, there is a comparable difference in symptom level across the risk groups, relative to its variance.

| Table 6.11: Teacher-reported symptoms for two disorders by relative risk |
|------------------|------------------|------------------|
|                   | ODCD             | ANXDEP           |
| **Low Risk**     | Mean (SD)        | 2.63 (4.80)      | 1.26 (1.79)      |
| (n=19)           | Range            | 19 (0-19)        | 6 (0-6)          |
| **High Risk**    | Mean (SD)        | 5.21 (5.65)      | 2.63 (2.69)      |
| (n=19)           | Range            | 17 (0-17)        | 9 (0-9)          |
| **Diagnosed**    | Mean (SD)        | 10.8 (10.25)     | 4.75 (6.09)      |
| (n=8)            | Range            | 26 (0-26)        | 15 (0-15)        |

**School Performance**

In addition to assessing students’ relative risk for ADHD, ODCD, and ANXDEP, the VADTRS includes measures of school performance. School performance, as described above, is estimated on two dimensions: academic behavior performance and classroom behavior performance with higher numbers signifying better performance.

Overall, the study population had a mean academic performance score of 9.45 (SD=3.42). This was slightly but significantly lower than the mean for the entire population ($t(208)=1.71$, $p < 0.10$). The same relationship was found for classroom behavior performance as well. The
The study sample had a significantly lower mean classroom behavior performance score (15.04, SD=4.43) than the entire student population (t(206)=4.35, p <0.001).

School performance also varied by risk group. The low risk ADHD group was rated highest for mean academic performance (11.60) and for mean classroom behavior (18.25). Those diagnosed with ADHD had the lowest mean academic performance score (6.89) while those at high risk of developing ADHD had the lowest mean classroom behavior performance. This is shown in Table 6.12.

<table>
<thead>
<tr>
<th>Relative Risk</th>
<th>N</th>
<th>Mean Performance Scores (SD)</th>
<th>Academic</th>
<th>Classroom Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Risk</td>
<td>20</td>
<td>11.60 (2.76)</td>
<td>18.25 (3.73)</td>
<td></td>
</tr>
<tr>
<td>High Risk</td>
<td>20</td>
<td>8.45 (3.00)</td>
<td>12.40 (2.89)</td>
<td></td>
</tr>
<tr>
<td>Diagnosed</td>
<td>9</td>
<td>6.89 (3.02)</td>
<td>13.78 (4.44)</td>
<td></td>
</tr>
</tbody>
</table>

Summary

This section explores the characteristics of the study sample as well as differences and similarities between the study sample and the entire student population. The study sample was predominantly White and male, and its students were slightly older than those found in the general student population. As mentioned in Chapter 3, ADHD is more common among boys; because this project is interested in watching the diagnosis process happen, the greater number of boys may prove beneficial to achieving the study’s goals.

As expected, there were considerable differences in the reported behaviors for ADHD among low risk, high risk, and diagnosed students within the sample. These differences persist for the two other disorders measured by the VADTRS. Mean symptom levels for ODCD and ANXDEP were highest among those diagnosed with ADHD. Similar findings were also found on the two scales rating school performance. Students diagnosed with ADHD had the lowest
reported academic performance scores while those at high risk of the disorder had the lowest classroom behavior performance scores.

Some differences were also found between the sample and the general student population. The study sample, for example, had higher mean symptom levels for all disorders and lower mean scores on both measures of school performance. Again, this is due to sampling.

The Caregiver Sample

In the previous sections, information gathered from the VADTRS 1 about the student sample was discussed. Here, the demographic makeup of the caregiver sample is discussed. No information was collected for the caregivers of the general student population, and comparisons between the groups cannot be made.

While the majority of the students in the student sample were male (58.8% of children), all but two caregivers interviewed were female. These women were either the child’s mother or grandmother. The mean age of caregivers interviewed was 33.76 (SD=7.36) but ranged from 23 to 56. Approximately 63% of caregivers identified themselves as being White, a comparable figure to students in the sample identified as White. More than half of the caregiver sample reported being married (51.0%). Nearly two thirds of the caregivers in the sample (62.8%) had completed some type of post-secondary education at a technical college, community college, or 4-year university. Less than 18% of parents did not finish high school.

The majority of caregivers (54%) reported that they worked outside of the home, and those who worked reported an average work week of 32.81 hours (SD=14.63). In terms of income, 56.9% of parents made $40,000 or less annually with 27.5% of the entire sample reportedly making less than $20,000 a year.
As expected, significant differences in mean annual income existed by school 
(F(3,47)=5.47, p <0.005); these are shown in Figure 6.1. Caregivers of students at J.W. Faulk 
had the lowest mean annual income (M=1.60, SD=0.97) of all the study schools. J.W. Faulk’s 
mean annual income was significantly lower than both Prairie (M=3.40, SD=1.80) and Ernest 
Gallet (M=3.92, SD=1.98); caregivers at Live Oak (M=2.15, SD=1.21) reported significantly 
lower mean annual incomes than caregivers of students at Ernest Gallet but not Prairie.

Significant differences for mean annual income also existed by ethnicity. White 
caregivers were more likely to have higher annual incomes (M=3.53, SD=1.87; mean indicating 
a value between $40,001 and $80,000) than Black caregivers (M=1.74, SD=0.87; mean 
indicating income between $0 and $40,000 a year). The variables of school attendance and 
ethnicity should not be considered independent of one another, however. All 10 caregivers from 
J.W. Faulk identified themselves as Black while all 13 caregivers from Ernest Gallet identified 
themselves as White.
Most caregivers received some form of assistance (58.8%; from child support to Medicaid and SSI). Almost a quarter of caregivers (23.5%) reported that they had no one to borrow money from if they needed it.

**Caregiver Interviews II and III: Changes to the Sample**

Three caregiver interviews were conducted over the course of a year. Because of the study’s duration, some caregivers were unable to complete all three interviews. This section is dedicated to describing changes in the composition of the sample for Caregiver Interviews II and III. It addresses specifically the number of students and caregivers who participated as well as observed changes in age, school representation, and representation across risk categories. The two students who did not have an initial evaluation were not included in the numbers above; they are also not included in the numbers below. Caregivers for both students did, however, complete all three interviews.
Caregiver Interview II

The caregivers of 41 students completed the second interview. Live Oak Elementary saw the largest decrease in participants; caregivers of 4 students did not complete Interview II (bringing their total to 10, including the students who did not have initial VADTRS evaluations). Caregivers of one student from J.W. Faulk, one student from Prairie, and two students from Ernest Gallet also failed to complete the second interview. There was variation across child risk of developing ADHD of those caregivers who completed Interviews I and II. Of the original 49 study participants, caregivers of two low risk and six high risk students failed to complete both interviews. All caregivers whose children had ADHD completed both interviews.

Caregiver Interview III

Only 36 of the original 49 participants completed Interviews I and III. The caregivers of two children who could not be reached during the second interview were contacted for the third and were interviewed. Thus, the numbers included in this section are not cumulative with the previous section. Live Oak had 7 caregivers fail to complete Interviews I and III; again, this was the most of any study school. J.W. Faulk had three caregivers who did not complete Interviews I and III while Prairie had two and Ernest Gallet had one. As was the case in Caregiver Interview II, there was variation in the caregivers who completed both interviews based on child’s relative risk of developing ADHD. Caregivers of 9 high risk children did not complete these interviews; this is three times higher than the number of caregivers of low risk children who did not complete them. Only one caregiver of a child with ADHD did not complete Interviews I and III.

Summary

Although attempts were made to contact all of the original study participants by phone or, if an address was available, by mail, it was not possible in all cases. Disconnected phones were
the most common reason for failing to reach a caregiver. This led to a considerable drop in participation over the course of the study period. Between Interviews I and II, there was a 16.4% decrease in participation; between Interviews I and III, there was a 27.6% decrease. Although these figures exclude the two students who did not receive an initial VADTRS evaluation (and, therefore, the percentages should be lower), they are still high.

The changes in participation over time are perhaps most significant when a child’s risk of developing ADHD is considered. Caregivers of children at high risk of developing ADHD failed to complete follow-up interviews more often than caregivers of children in other risk categories. One of the study’s central hypotheses is that caregivers under greater stress would be more likely to accept a diagnosis of ADHD. It is possible that the caregivers of high risk children who did not complete subsequent interviews were indeed facing additional stressors that made their participation in the research project difficult.

**Teacher Sample Characteristics**

During Phase III of the project, 20 teachers from two of the study schools—Prairie and Live Oak Elementary—were interviewed. Only a few demographic measures were collected from them, and these are discussed here.

Eleven teachers were employed at Prairie, and five of these were French Immersion teachers. Kindergarten (n=9), first grade (n=5), and second grade (n=5) teachers were recruited for this phase of the project because they taught the same age group of children participating in the rest of the study. All but one teacher was female.

The teachers ranged in age from 27 to 52 with a mean age of 36.4 years (SD=7.36); this is a few years older than the students’ caregivers. The number of years teachers had worked in
their field varied from 4 to 24 with a mean of 10.80 years (SD= 5.63). Sixty percent (n=12) of the teachers reported they had a student with a disability in their classrooms; when asked specifically about students with ADHD, however, 80% of teachers (n=16) reported that they had a child with ADHD in their classes.

Conclusions

The goal of this chapter was to familiarize the reader with the student, caregiver, and teacher populations who participated in this study. Using the VADTRS 1 and, to a lesser extent, the first caregiver interview, student characteristics were explored at the general population, school, and study sample level. Then the demographic composition of the caregiver sample—and changes to it over time—was described. Finally, information was presented about the teachers who were interviewed during Phase III of the project.
Chapter 7: Establishing “Normality” in the Child-Parent-Teacher Microcosm

In everyday language, disease and disorder are thought of as opposites to health and “normality.” Although this research project focuses on ADHD, a disorder of childhood behavior, “typical” functioning within the child-parent-teacher microcosm was also studied. By examining what was expected from children, their caregivers, and their teachers, it was believed that disorder could be more appropriately defined.

To do this, parents and teachers were asked to evaluate the level of behavior they deemed appropriate for children in kindergarten, first, and second grade. Because the measure used to assess expected behavior was modified from the VADTRS/VADPRS, it is based on the DSM-IV and uses age-appropriate behaviors as its indicators. Expectations of adults as caregivers were evaluated by asking caregivers about the characteristics of the “good home life” they were supposed to provide and about parenting beliefs and responsibilities, including preparing their children for school. By behaving in culturally appropriate ways as parents, caregivers are thought to be preparing their children to successfully meet the expectations placed upon them by schools. These classroom expectations were then explicitly defined by the teachers themselves.

Perceptions of “Normal” Childhood Behavior

Parents’ Perspectives

Twenty items were used to assess caregivers’ expectations of typical behavior for kindergarten, first, and second grade students. Caregivers were asked to say how often they
expected this age set to engage in each of the activities. Nearly every item is comparable to a question appearing on the VADTRS or VADPRS. Each activity was rated on a 5-point Likert scale with higher numbers signifying higher expectations of behavior (Table 7.1). For example, caregivers were asked, “How often do you expect a kindergarten, first, or second grader to stay focused on an activity or task?” A score of “one” indicated that the caregiver “never” expected children that age to be able to stay focused on an activity while a score of “five” meant that the caregiver “always” expected them to stay focused. Items that described negative behaviors were reverse coded for scaling purposes.

<table>
<thead>
<tr>
<th>Table 7.1: Mean expectations of behavior by question, for caregivers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How often should a child be expected to</strong></td>
</tr>
<tr>
<td>1. Do school and homework without making careless mistakes</td>
</tr>
<tr>
<td>2. Stay focused on an activity or task</td>
</tr>
<tr>
<td>3. Listen when spoken to</td>
</tr>
<tr>
<td>4. Finish his/her school work</td>
</tr>
<tr>
<td>5. Be organized with tasks or activities</td>
</tr>
<tr>
<td>6. Sit and do an activity that may be boring</td>
</tr>
<tr>
<td>7. Keep track of things needed for school like books or school assignments</td>
</tr>
<tr>
<td>8. Pay attention without getting distracted</td>
</tr>
<tr>
<td>9. Remember to do daily activities like brushing teeth</td>
</tr>
<tr>
<td>10. Sit still without fidgeting</td>
</tr>
<tr>
<td>11. Do what he or she is told by a teacher</td>
</tr>
<tr>
<td>12. Be hyper</td>
</tr>
<tr>
<td>13. Play games or do activities quietly</td>
</tr>
<tr>
<td>14. Be ‘always on the go’</td>
</tr>
<tr>
<td>15. Talk too much</td>
</tr>
<tr>
<td>16. Blurt out answers to questions</td>
</tr>
<tr>
<td>17. Be impatient</td>
</tr>
<tr>
<td>18. Interrupt a conversation</td>
</tr>
<tr>
<td>19. Play outside</td>
</tr>
<tr>
<td>20. Act out</td>
</tr>
</tbody>
</table>

Out of a possible score of 100, the mean score for parents was 63.33 (SD=9.38).

Although the range of scores is wide (from 38.00 to 87.00), the scores form a normal distribution (Figure 7.1). This suggests that caregivers converged on a level of behavior considered typical
for children this age. There is some variability, however, among the expected behavior scores, and several statistical analyses were conducted to see if this variability could be further explained.

The most notable source of variability in the child behavior expectation scores occurred between married and unmarried caregivers. Unmarried individuals had higher mean scores than married individuals (unmarried=66.95, SD 9.80; unmarried=60.05, SD=7.82); these results were statistically significant (t(40)=2.54, p<0.05). As mentioned above, higher scores indicate more demanding expectations of behavior. Because their expectations are higher, single parents may be more likely to see behaviors as problematic (as opposed to typical) of young children.
Figure 7.1: Distribution of Sum of Expected Childhood Behavior Scores

In terms of income, the highest mean behavior score—that is, the strictest behavior score—was found among families who earned the least (Figure 7.2). Families earning less than $40,000 a year (n=22) reported a mean behavior score approximately eight points higher than families earning between $40,000 and $79,000 (n=8). A one-way ANOVA comparing the extent of the differences among these three groups revealed that the differences approached but were not statistically significant (F(2,39)=2.42, p = 0.102). Because the ANOVA approached significant results, a series of independent samples t-tests was conducted between the groups. A statistically significant difference was found between the first and second group (t(28)= 2.066, p
< 0.05); no significant differences were found between the second and third and the first and third groups.

Slight variability was also found based on caregiver’s educational attainment. Caregivers who did not finish high school had the highest (most restrictive) mean behavior score (67.38, SD=7.84). Those who finished high school but did not go on to college had the lowest mean of 61.86 (SD=6.91). These results were not statistically significant, however.

Equally interesting are those variables that were not significantly associated with mean expectations of behavior. Although the mean behavior scores were lowest among the youngest caregivers (under 30 years of age) and highest among the oldest caregivers (more than 40 years old), the differences were not statistically significant (F(2,39)=0.158, p > 0.10). There was no correlation between mean expectations of behavior scores and caregivers’ ethnicity. While there was a small difference in mean expected behavior scores between working (61.33, SD=7.79) and non-working (65.40, SD=10.82) caregivers, the difference was not statistically significant.
(t(39)=1.39, p >0.10). There was no association between expectations of behavior and parental health or perceived stress.

There were also no significant differences in behavior expectations based on several child characteristics: child’s gender, grade in school at time of VADTRS 1, or child’s risk of developing ADHD. There was also no correlation between expected behavior scores and children’s academic or classroom behavior performance scores from the VADTRS 1.

**Teachers’ Perspectives**

In order to understand what teachers expected from their students, teachers at two schools (Prairie and Live Oak Elementary) were asked the same series of questions about behavior expectations as caregivers. The mean behavior score for teachers was 70.15 (SD=7.80)—seven points higher and, thus, more restrictive than caregivers. The range for teachers’ scores was smaller than for caregivers (from 56.00 to 83.00), but it indicates that there is some variability among teachers in the behavior they expect from their students. This is explored in greater detail below.

It was suspected that, because of their shared training and work experiences, teachers would share a model of normative childhood behavior. Teachers’ responses to the normative childhood behavior scale were subjected to a principal component analysis to demonstrate whether or not significant sharing of this model existed among teachers. Typically, model consensus exists if the eigenvalue ratio between the first and second components is greater than 3. For all teachers in this sample, the eigenvalue ratio between the first and second components was 2.66; this value indicates that there is no strong consensus among teachers as to what constitutes normative childhood behavior.
When the loadings were compared for components one and two, however, a group of six teachers shared low values for the first component and higher values for the second. This indicated that there may be more than one model of normal childhood behavior. Once these teachers were removed from the analysis, the eigenvalue ratio between the first and second components improved to 5.56; this value indicates consensus among the remaining teachers.

Based on the limited information collected during the teacher interviews, it is difficult to say what distinguishes this subset of teachers from their peers. The teachers varied by age, number of years spent as a teacher, grade taught, and school of employment. Additional research is needed to determine if competing models of normal childhood behavior exist and which factors account for teachers’ choice in models.

A significant difference in mean behavior scores was found among teachers based on the grades they taught (F(2,16)=3.69, p<0.05). Kindergarten and first grade teachers had similar mean behavior scores; the mean behavior score for kindergarten teachers was 68.11 (SD=8.30) while first grade teachers had a mean of 66.00 (SD=5.43). Both kindergarten and first grade teachers differed significantly from second grade teachers who had a mean score of 77.00 (SD=5.10). This result is not unexpected. As students grow older, their expectations at school increase. The largest jump in expectations for students seems to come between first and second grade.

Expected behavior scores differed based on the school teachers worked at (t(18)=2.27, p<0.05). Teachers at Prairie had a lower mean behavior score (66.91, SD=8.64) than teachers at Live Oak (74.11, SD=4.34). The difference in scores could be attributed to the makeup of the teacher sample, however. Out of the nine kindergarten teachers interviewed, six were teachers at
Prairie Elementary. Because kindergarten teachers reported lower means than teachers in other grades, this may explain why the behavior score is lower there.

Several factors did not account for the variability found in the behavior scores. There was no correlation between behavior scores and teacher’s age or years working as a teacher. There was no significant difference in scores between traditional and French Immersion teachers. Having a student with a disability or with ADHD in the classroom also did not affect teachers’ expectations of behavior.

Summary

Many interesting observations emerged as a result of this examination of adult expectations of childhood behavior. One of the most interesting finds is the difference in mean behavior scores between caregivers and teachers. Teachers reported scores nearly 11% higher than caregivers, which makes them considerably less permissive than parents. This is especially true as children age. For teachers, behavioral expectations remain relatively unchanged between kindergarten and first grade but increase significantly in second grade. It should be noted that the time in a child’s life between first and second grade coincides with the median age of ADHD diagnosis.

Another compelling statistic is the difference in expectations between unmarried and married caregivers. Like teachers, unmarried caregivers are stricter in their definitions of what constitutes typical child behavior. It is possible that unmarried caregivers are under greater strain than their married counterparts. Unmarried caregivers report slightly more health problems and greater stress than married caregivers although the differences are not statistically significant. At work, unmarried caregivers (M=22.56, SD=21.03) worked significantly more hours than married caregivers (M=12.38, SD=17.11; t(49)=1.90, p<0.10). Furthermore,
unmarried caregivers scored significantly higher on scales of effort and commitment to their jobs than married caregivers \( t(22)=1.88, p<0.10; t(22)=2.38, p <0.05 \). When these pressures are combined, the strain may be enough to increase the expectations placed on their children.

Family income also seems to play a factor in the parental expectations. Those who earned the least amount of money—and presumably, like unmarried caregivers, may be under the most strain—expected the most from their children. Expectations decreased in the middle income group before increasing among those families who earned the most.

Many things one might expect to affect caregivers’ expectations of behavior had no impact (statistically speaking) on them. Expectations of behavior remain unchanged when compared along important caregiver characteristics like age, ethnicity, or work status. Several characteristics of the children that were believed to influence caregivers expectations of behavior—child’s gender, grade in school at time of VADTRS 1, or child’s risk of developing ADHD—did not account for the variability in behavior scores. Among teachers, age and years as a teacher had no impact of mean behavior scores.

The Caregiver’s Role

The transition to parenthood means that adults are given a new set of responsibilities and expectations. Many of the parents who were interviewed for this study commented that their greatest responsibility as parent was to raise a child who will grow up to be a productive member of society. The consequences for failing to meet these roles can be steep; one woman described the shock of realizing one day that she could actually “fail” as a parent.
Based on the first caregiver interview, it became clear that providing a good home life was the primary obligation of parenthood. During the second interview, caregivers were asked to better define this obligation by identifying the important features of a good home. Caregivers repeatedly commented on two domains of a good home life. What emerged was disagreement among parents regarding the composition or structure of a household but agreement on the essential qualities successful households must have in order to be beneficial to their children.

**Household Structure.** Parents’ discussions of household structure typically revolved around the number of caregivers that should be present in the home and their ideal work status. Although structure is mentioned often, many parents suggested that there was no single “recipe” for the ideal household.

On the one hand, parents believed that having two caregivers in the home was necessary for a good home life. One mother had recently separated from her husband; their two children remained with him and were cared for by his mother. She said, “My kids have adjusted [to the separation]. I mean, they’re happy. But it’s not… For me, it’s not right. It don’t feel right. I’d rather them have two parents in the home. I think that’s important.” Another mother of two said, “I’ve witnessed, seen people who are separated, and it seems so much more difficult… I guess I just have an exceptional husband, but I couldn’t do it on my own.”

On the other hand, parents commented that having a single caregiver was preferable to living in a dysfunctional two-caregiver home. If the marriage was an unhappy one or if one parent engaged in problematic behaviors (e.g., one mother separated from her husband because of alcohol abuse), then it was usually viewed as better to separate. As one single parent put it, having only one caregiver is “not doomsday to the home life,” especially if the caregiver has a
good support network. Being a single parent, they say, is definitely more challenging, but raising successful children is more than possible.

Another area of disagreement in home structure is whether or not a parent (typically a mother) should stay at home. The benefits, many claim, are significant if families can afford to live on only one income. One stay-at-home mother of two said:

Moms being at home is important because you’re able to see what… you’re able to do the things around the house that need to be taken care of. The kids come home, and there’s somebody there. There’s not somebody missing… Mom’s home. The house is clean. Food is cooked. The environment is set so that it’s easier for a child to come in and do what they need to do… We’re able to have that relationship.

Thus, having a mother who does not work outside the home makes it more likely that families will be able to meet life’s demands.

One recently divorced working mother said, “It would be best if moms could stay home, but a lot of that is just not possible.” In today’s world, most parents maintained that two household incomes were necessary to be able to pay bills at the end of the month. Being at home may allow parents to have more time for their children, but the reality is, as one mother argues, “It’s a matter of Mama has to work in order for you all to eat, have clothes, have what you need. This is what I have to do.” Furthermore, working outside the home is seen to have its own advantages. One stay-at-home mother of two described how stressful it could be to spend all of her time by herself with the children; it was especially hard for her because her husband worked offshore and was out of town regularly. Mothers working outside the home are allowed to have a “break” from their children while also being able to have a professional life. Many also touted the benefits of putting their children in daycare or preschool. While some stay-at-home mothers admonished the idea of having someone else “raise” their children, working mothers said that
these programs often helped prepare their children for elementary school. Beyond learning their letters and numbers, these children were taught how to behave in that social setting.

All women, regardless of their employment decisions, were required to strive toward a balance between work and home. Mothers—whether working or not—said that working mothers should do their best at the office but should never put it before their families. Mothers admitted that the balance between work and home demanded from them was mostly unattainable, however. One mother of two said either choice requires sacrifice “because something is going to go left undone. You know, be it the house, the organization of the household, or be it the time, the quality of time spent with the kids or even with your partner or your spouse.”

Qualities of a Good Home Life. Among parents, there was more agreement regarding the important qualities of a home life than there was about its structure. Several parents stated the parenting was a full-time job, and being active in a child’s life was critical. Active parenting went beyond meeting the basic needs of food and shelter. It required ongoing effort and participation from the caregiver. An active parent is one who provides structure, routine, and discipline in daily life. One mother of two said, “You cannot have a good home life if you don’t have structure.” Another added, “If they don’t get the discipline, staying on top of them… they’ll act out. They’ll beg for discipline.” Finally, active parents also teach their children responsibility, perhaps through chores, and the appropriate ways to behave in various social settings.

As one mother of six noted, “Little kids shouldn’t worry about, you know, their moms and dads not being there for them, unstable, craziness, drama.” The reward for children of active parents is stability at home. To protect the family life they have created, however, parents must
be vigilant about what they keep out of their homes. Negativity was the umbrella term used by most parents to describe the one thing from which they wanted to protect their children. Negativity included bad words, attitudes, and images; violence; and people who may influence or “corrupt” the children in a negative way. These people include the parents’ friends or other children. One mother described how she was often the sounding board for friends in trouble. Instead of bringing them into the apartment where her son was, she would talk to them outside. She worked hard to protect him and the “nest” she had built with him and did not “just let anybody come in.”

Keeping out negativity also means that parents typically monitored their children’s TV, radio, and computer time. A mother of three said, “I monitor what they do. I monitor everything. I monitor their TV time. I monitor their computer time and activity. I monitor texting—and you would be surprised at how many moms are like ‘Oh, she’s just talking to her friends on Facebook.’ No. I don’t let her. I have complete access to it.”

In addition to staying vigilant about the amount of negativity that comes into their homes, parents must also be aware of how stress affects their households. Stress at work, about money, and in relationships is seen to weigh heavily on children. One mother admitted she did not feel her home life was as good as it could be. Just a few months earlier, she suffered a miscarriage that still weighed heavily on her. Around the same time, she also lost her job and was doing the best she could to get by as a single parent. Her troubles were compounded because she felt she lacked support from family; she claimed that her family members were either dead or too involved in their own affairs to help her. At the end of the conversation, she said, “I feel I’m in this box, trapped and can’t go nowhere. And every time I turn around, it’s like a corner, and I can’t feel a door. And I don’t want my child growing up thinking the same way.” This mother
had a very real fear of how the stress in her own life would disrupt her daughter now and in the future.

Like its structure, the quality of home life is dependent upon balance. A mother of six said, “I don’t want to be too overprotective, but then I’m not going to let my guard down.” One has to balance the structure, routine, and discipline with love and the negative things with positive ones. But this balance takes a considerable amount of effort to achieve. If balance is lost, the home life suffers. And if balance is lost, it is typically the fault of the parents. One mother of two who works at a daycare stated, “When it’s kids not having a good home life, it’s because of the weaknesses of the parents, and um, negative things in their life.” Parents who are irresponsible, too busy, uninvolved, inconsistent, stressed, and uneducated ruin a child’s chances of having a good home life. Parents whose children have bad home lives are seen as “selfish,” caring only about themselves. The result is that “when it’s all about them, their child gets lost in the shuffle.” Below is part of an interview with both the mother and father of one child. For them, selfishness and a lack of discipline are the problems in many homes:

Interviewer: In your interactions with other people, you have probably seen some people with good home lives and others who seem to be falling short. What keeps people from getting there?

Mother: From getting what they want at home?

I: Yeah. Having a good home life.

M: Probably laziness and motivation. It’s my opinion, but—

Father: Wait, why do people not have a good home life? Because they lack discipline.

M: Responsibility.
F: … You have to have discipline to wake up and become an adult and accept adult decisions, you know? You’ve got a kid… People today lack discipline. They don’t know how to sacrifice for the greater good, which is the child.

M: I like his answer.

These interviews suggest parents place a greater emphasis on the content—rather than the structure—of their home lives. Regardless of marital or work status, parents should be involved and engaged. This means fostering a home that is both disciplined and structured but also loving and is more positive than negative. The responsibility for having a poor home life rests firmly with parents. No one else is to blame. In order to be successful as caregivers, parents must exhibit the characteristics they should be imparting to their children.

*Preparing Children for School*

During their first interview, caregivers were asked to describe what they were responsible for doing with their children so that they succeeded at school. Then, the caregivers were asked to describe how other parents’ approaches differed from their own. During their discussions about other parents, caregivers were asked to discuss any questionable parenting practices they had witnessed.

Parents’ responses to these questions painted a clear picture of a “good” caregiver, a caregiver who adequately prepares his or her child for school. These caregivers are expected to be involved, active and vigilant in their children’s lives; in essence, they serve the same caregiving role they do at home. As several parents commented, the role of education is not solely the responsibility of the teacher. Instead, caregivers should be aware of what is going on in the classroom and be prepared, as one mother of three said, to “reinforce it at home.” Reading and math are especially emphasized as skills that must be practiced outside the classroom. This means not only helping children with homework and studying for tests but also seeking out
additional “supplemental, school-like education” as one father of two described it. Caregivers are expected, especially in the summer between school years, to furnish their children with workbooks or activity sheets that help keep their minds working. Children’s minds, one mother of six said, were like machines. If they were not used during the summer, they may not work later. The extra work also helped students stay sharp as their educational expectations changed. One mother of three described how her daughter would be starting a new reading program in the fall. To prepare her daughter for it, the mother had her reading more every day and working on flash cards. In a way, caregivers are expected to serve as an extension of classroom learning. By providing their children with flashcards or helping them complete homework, parents fill in where a teacher leaves off; for parents, this is one of the best ways to ensure their children succeed.

Caregivers are also expected to commit themselves and their children to a high level of extracurricular education. Outside of the classroom, caregivers are expected to engage their children in activities—to, in the words of one mother, let their children “experience the world and life.” These can include trips to the library and museums, travel, and participation in organized sports. Outside of the classroom, caregivers are also expected to pass on skills of “social living.” To be successful at school, children need to learn responsibility (through chores, for example) and routine at home. One mother said bluntly, “If you let them be lazy at home, they’re gonna be lazy in life. And in school.”

Above all, caregivers must be vigilant when it comes to their children’s education. This level of surveillance starts very early on—many times before children enter school. In the following passage, one mother describes how very different her two sons are when it comes to
school. Her younger son, James, is the study participant. The names of both boys have been changed:

Well, I mean it starts before they even go to school. If you want, like this is for me, like my oldest—he’s 13 now. And when he was a baby, when he was little, I read to him constantly. And he’s gifted and he’s talented. You know, he’s super, super smart. And there’s a difference [between the boys] because I didn’t do that with James. I didn’t read to him as much as I did with Walker [child’s brother], and I find that with him I… he’s smart, but I have to, I have to explain things to him. I have to, you know… going through kindergarten, I had to sit and teach him to read whereas my other one was reading at three years old. I mean, I never remember having to teach Walker anything, you know? … But with James, I have to work with him, with his homework. I have to help him, stay right over him so he knows, so I know that he knows what he’s doing.

The pressure on caregivers to be an “expanded part of learning” can be great. Even before their children start school, caregivers are expected to be involved in the process of education in and out of school. Many parents are perceived as not being able to meet this high level of demands. Caregivers described two types of “bad” parents: those who are not involved at all in their children’s education and those that overextend their children. One mother of two, who received the lowest parent involvement score based on the third caregiver interview and is therefore a “bad” parent, described how she wanted to help her son but faced several barriers to doing so:

Interviewer: Now if parents want their kids to do well in school, what sorts of things should they be doing or not doing with their kids?

Parent: … Um, I feel like take more time with them on the side, and work wit ‘em at home. But doin what the teachers say, and you know, she don’t want them to do too much book work because she don’t want them to be burnt out within school. And I somewhat disagree with that. But then I feel her point is, what she’s sayin’ too… as far as overworking ‘em.

I: So you’re kind of doing some extra stuff with [child] at home, right?
P: Yeah, we work on the sight words and stuff, but he get burnt out and aggravated to where it’s kind of hard to deal wit ‘em because you don’t know how to go about, you know, to make him sit down and wanna do it.

I: Yeah, well I guess they are at school eight hours a day already.

P: And he figured he already know it, so why should I have to come home and do it again?

I: Uh huh. So, just in talking with other parents that have kids [child]’s age, are you surprised by what they’re doing or not doing with their kids at such an early age?

P: Yes, ma’am. Just doin’ the work, I mean… the exercises they need to be doing, what they require for them to be doin’ in school. And these days, it’s like if you don’t… if they don’t get it at school and if you don’t help him on the side, then it’s hard.

I: Yeah.

P: And some of the things they teachin’ ‘em, you know, in school is getting to where we might not even be able to help ’em… cuz it’s that difficult.

A mother of four, one of which had ADHD, also reported low levels of parental involvement. For her, low involvement has not always been the norm. She said, “With my oldest two, my mom and dad helped me out a lot. Because their father is long gone. I don’t even know if he is alive anymore. Um, it’s, I was there, and I was involved and everything. You know, when it’s me paying for it, it’s different.”

When asked what surprised her that other parents were doing with their children, one mother of three said “Nothing. Like, there’s some people that do absolutely nothing [with their children]. I’m just, I don’t know, I think the things they learn in school, I don’t think it’s just the teacher’s responsibility, you know? I think it’s a team effort. And it just floors me that some parents think it’s the teacher’s job and that’s it.” Uninvolved parents are problematic because they fail to meet their expected role as active and involved caregivers. They unnecessarily place
the entire burden of education on teachers who are “overworked and underpaid for sure.”

Teachers, one mother said, are not parents. Another added, “You can’t expect the teachers and the principals and the assistant teachers, you can’t expect them to do your job. It really starts at home.” According to one mother who actively served as the head of the parent-teacher organization at her children’s school, parents who are not involved pose a serious threat for all students at the school. She said:

I see so many more misbehaved kids… misguided…. um, unloved kids than I think I’ve ever seen. Yeah. And I think it’s getting worse over the years… and [teachers] can’t discipline. They call the parents. Half the time, the parents don’t care, so it’s disruptive for the kids who actually wanna learn. So, unfortunately, the good are gonna have to suffer with the bad sometimes.

If caregivers fail to meet their roles as “good parents,” teachers and students are seen as unable to perform their respective jobs.

While some parents struggle with being under-involved in their children’s education both in and out of school, some parents are seen as being overly involved. These parents overextend their children through organized activities, especially through sports. One mother, below, described how her family’s relationship with another family was suffering because their friends had enrolled their second-grade daughter on a select softball team:

Parent: We have some friends of ours, their daughter’s involved in softball, and they have practice four nights a week and games on Saturday. So it’s really… we used to do stuff together with the couple, with the family. We have basically Sunday and Monday nights when we can do stuff [with them], so it’s really kind of time consuming.

Interviewer: And she’s going to be doing that into the school year?

P: Into September. And this is softball so this has been going on since the spring. And they don’t finish until like September, October. So… yeah, I was like, to me, that is too much.
The mother who was interviewed for the study was herself struggling with the fact that she and her children were hardly home in the evenings. Between church and karate, they were gone at least three nights a week.

Being an uninvolved caregiver means that children may fall behind at school and teachers may not be able to do their jobs properly. Parents who overextend their children are seen as causing a different but equally distressing problem; they are robbing children of their childhood by not “letting them be kids.”

The information collected from the caregiver interviews suggests that parenting is an extremely demanding and complex job. Education is both formal and informal and starts early in children’s lives. To do their jobs properly, caregivers are expected to be active, involved, and vigilant from the beginning. If they are not involved enough, they disrupt the school system and potentially jeopardize the chances of learning for their children and others. Caregivers who are too involved and place too much structure and responsibility on their children run the risk of making their children grow up too fast. Caregivers do perceive that balance can be achieved, that an optimal environment exists and is attainable. Even though, as one mother admits, it is impossible to be “an expert parent,” it is this balance—between uninvolved and overinvolved, between too little pressure and responsibility and too much—to which caregivers seem to strive.

**Teachers’ Expectations**

Like parents, teachers have their own set of expectations that govern how students are supposed to behave and how their classrooms should run. The kindergarten, first, and second grade teachers interviewed here expected their students to be happy and excited about learning. Many also said that students at this age were eager to please their teachers. Teachers expect their
students to follow classroom rules and to learn appropriate behaviors; as one teacher put it, she says her students have to learn “how to work within the realm of what’s acceptable (at school), and, you know, doing what you’re told when you’re told to do it.” For students, doing what they’re told almost always includes raising their hands, talking only when allowed, staying in their seats, and following directions. If students follow the rules, classroom routine, consistency, and order can be maintained. And, as many teachers commented, preserving order and structure is critical to a successful school day.

The schedule for each school day is rigidly constructed. Instruction time for each subject is calculated to the minute to meet state and parish regulations; even bathroom breaks are a scheduled part of the day’s activities. Here is one teacher’s description of a typical day in her classroom:

Ok, first thing in the morning, they walk—they know routine. They unpack. They know where to put folders. And it’s journaling time because we only have 15 minutes before our—we have to go to P.E. every day at 8:15. So, um, once they return, it’s our phonics lesson, our shared reading lesson. Let’s see. Then it’s recess. Fifteen minutes whether it be inside or outside…Let’s see. What else? Then it’s snack until 10:15. After snack, it’s math. Usually math. And then I’ll get, I’ll do a short social living (social studies). And then it’s guided reading so they go to centers. I do small-groups guided reading at this table. After that, it’s lunch. Um, we get ready for nap but then we go to second recess. Then we come in for nap. While they’re napping, I do all the conduct (grades), stuffing the folders. After nap, they get up and do—I call them loud centers, afternoon centers… And then it’s dismal… There’s no time for cleaning, you know, picking things up and organizing. Things don’t always go back where they came. Yes, so getting to leave right when that bell rings or whenever teachers can leave at 3:20? Uh uh. Yes, you leave things undone.

Many teachers are exasperated by everything they have to accomplish in one day. With a class of more than 20, one teacher struggled to find the time for seven groups of children to read with her. As long as she scheduled the 20 minutes of required daily reading time for each group,
she was doing her job in the eyes of the school. But she felt as though she was giving her students “quantity and not quality” education. Another teacher admitted to shortening the time she dedicated to subjects she viewed as less important, such as social living, even though it put her at risk of being reprimanded by the principal.

The pressure teachers feel is often compounded by increased demands from the administration. Already strapped for time during the school day, teachers resent having to include so many other activities—fundraising, special programming—into their schedules. They are still expected to squeeze in their instruction and perform well on the “high-stakes testing” that has become commonplace in the educational system. One teacher who has worked in school system for 17 years is anxiously counting down the years until she can leave. The last seven years, she says, “you just wouldn’t believe. It’s so draining. I pray the whole way to school in the morning.”

If teachers are able to finish their instruction during the day, they still have to contend with the fact that their classrooms are full of children on very different skill levels. Helping those who need help the most often proves to be an overwhelming challenge. The school system mandates that a teacher must complete a significant amount of paperwork before a student can receive additional help, such as tutoring, if he or she is falling behind. A teacher remarked that she did more work collecting data to prove students’ problems than actually providing the student with additional instruction to correct them.

In the contemporary education system where every minute counts, maintaining order and structure are critical. Instruction is nearly impossible without it. According to teachers, both parents and the school’s administration have made it more difficult for teachers to do their jobs properly. Ten out of 20 teachers said that behavior problems and lack of parental involvement
were the biggest challenges they faced in their classrooms. Many educators see these problems as being one and the same. Children are “bucking the system” because there is no support from and no structure at home. One teacher put it like this:

The good students, the “pleasers,” can resist temptation of, you know, breaking rules, being a follower… And then you have the opposite end where they have absolutely no training at home either for respect for authority or, um, procedures—well, routines I should say. And rules. “Oh, I don’t feel like it today.” You’ll get some of those. And um, at home, it’s okay if they don’t feel like it. That just doesn’t fly at school. They will not get all of what you have to teach if they just don’t feel like it today.

Teachers view parents as being held less and less accountable for their children’s actions at school. Like parents, teachers believe it is the responsibility of caregivers to establish order, boundaries, and rules at home so that children will perform better at school. When parents fail to do their job—that is, when the fail to provide them with a “foundation of ‘this is the way we socially behave,’”—the consequences are severe. Children from those homes are put at higher risk of developing disorders like ADHD, and the other children in the classroom lose precious instruction time.

In summary, teachers’ primary objective is to complete the instruction required of them. To do so, they must maintain a strict level of order and structure. This structure is often compromised by the increasing demands from administration and by parents who fail to teach their children the social obligations they are expected to fulfill in the school setting.

Conclusions

This chapter has examined the expectations of students, parents, and teachers as they relate to one another. Among parents and teachers, there is typically agreement on the level of behavior expected of children between kindergarten and second grade. This agreement does not
come without variability, however. On average, teachers demand more stringent behavior than parents do. Among parents, children of unmarried parents and of parents who earn the least amount of money also have higher demands placed on them than children in other categories.

In their roles as parents, caregivers are expected to display and teach many of the characteristics demanded of their children. Above all, parents are required to be active both at home and in their children’s classrooms. Good parents are those most adept at balance: balancing the responsibilities of work and home, enrolling their children in a reasonable number of extracurricular activities, and navigating around negative influences to name but a few.

Ultimately, the success of their children and of their home lives is the responsibility of parents. Good parents do what they are supposed to do and are rewarded with good home lives; bad parents have failed to meet their parental obligations, and their home lives suffer accordingly.

Teachers also have a set role to play in the child-parent-teacher microcosm. They expect their students to be trained both academically and socially by their parents. If caregivers are meeting the responsibilities of “good parenting,” their children will be well-behaved and prepared at school. Teachers rely on parents to uphold their parenting duties because teachers cannot complete their own jobs without this help. Because of increasing demands and inflexibility in the school day, teachers set high and rigid standards in the classroom that they feel must be maintained in order for their students to meet their educational goals.
Chapter 8: Defining Disorder: ADHD

The previous chapter attempted to define what was considered normal behavior for children, parents, and teachers as they interacted with one another. ADHD occurs when children move from acceptable behavior to “abnormal” behavior. This chapter is dedicated to describing what parents and teachers understand this abnormal behavior to be. A portion of caregiver and teacher interviews was dedicated to understanding lay beliefs about the natural history of ADHD. This included identifying the disorder’s signs and symptoms, the diagnosis process, treatments, causes and any additional information they could provide. All but one caregiver had heard of ADHD and could provide a description for the disorder. Every teacher interviewed had heard of ADHD and had had at least one student diagnosed with the disorder in their classroom. This chapter is dedicated to examining the similarities and differences between caregivers’ and teachers’ understandings of the disorder.

Signs and Symptoms

Caregivers most commonly reported symptoms of ADHD that could be labeled under the terms hyperactivity and inattention, the hallmark features of ADHD. During the interviews, caregivers often defined hyperactivity as an excess of energy and restlessness in children. One mother of three described how her godson, whom she thought had ADHD but was unsure, behaved. She knew that after he was put on medicine, the change in his behavior was dramatic: “Since he started taking the medicine, it’s like a world of difference. World. Like he went from bouncing off the walls to… I mean, it got to the point where he would drive me crazy… Like
ninety to nothing the entire time we were there.” Children who suffered from ADHD were thought to “bounce off the walls,” fidget constantly, and not be able to sit down. Children with ADHD were also characterized by their inattention, their inability to pay attention or focus on an activity. Caregivers commented that children with ADHD often became frustrated because they could not follow directions and could not complete tasks. Children were not necessarily inattentive because the activity was boring; some parents suggested that even the most interesting things—television or special activities—were not enough to get their child to pay attention.

While caregivers mentioned hyperactivity and inattention most frequently in the interviews, they also mentioned many other symptoms. These ranged from having difficulty sleeping and being unorganized to being nervous and depressed. Aside from hyperactivity and inattention, anger and aggression were also commonly mentioned in conjunction with ADHD. Aggressive behavior was thought by some parents to be a sign of the disorder, but many also associated aggression with ADHD medication use. A few of the symptoms listed—nervousness, depression, and aggression—could be associated with disorders commonly identified as co-occurring with ADHD. Learning disabilities are also commonly co-morbid with ADHD, but the parents who connected learning disabilities with ADHD thought of them as a sign of ADHD rather than as an additional problem a child may face once diagnosed.

Teachers’ lists of symptoms clustered into three main categories: hyperactivity/excessive energy, inattention, and impulsivity. Hyperactivity and inattention were defined by teachers much the same way caregivers described them above. When asked to describe the symptoms of ADHD, one teacher described a child with ADHD in this way:

Cannot sit still at all. Fidgets constantly. Um, attention span is just not there. Looking around the room. Cannot focus on doing any of their work. Doesn’t
want to do the work. Is bored easily. But not because they’re finishing quickly. They have no interest. They can’t pay attention long enough to find out what they need to do. And then hyperactivity would just be all over the place. You know, just can’t sit still.

Impulsivity was mentioned much more often by teachers than caregivers. This may be because teachers receive more training than caregivers do on recognizing symptoms of childhood disorders in their classrooms, and current ADHD research places greater emphasis on impulsivity as a core component to the disorder. Children manifested this impulsivity by touching others, blurting out in class, and being destructive (even if unintentionally); they, in the words of several teachers, “failed to control themselves” in the classroom. One teacher described a conversation she had with one of her ADHD students, “This one in particular, when it’s a quiet time, [he said] ‘I have to tell you something. It is so hard to be good.’ He said, ‘But it’s so easy to be bad.’ It’s just in him. Just in him.”

Several observations can be made based on these descriptions of ADHD symptomatology. First, caregivers and teachers share understandings of what ADHD is to a certain extent. Both groups agree that hyperactivity and inattention are classic features of the condition. Teachers, however, mention impulsivity as a distinguishing characteristic of ADHD more often than caregivers. This may reflect extra information teachers receive as part of their jobs. Although ADHD is commonly co-morbid with several conditions, very few people mentioned this during the interviews. Instead, they lumped characteristics of other disorders like anxiety, depression, and oppositional defiant disorder into their descriptions of ADHD.

**Diagnosis Process**

Most parents struggled with determining when children’s behaviors moved from being “typical children” to problematic and cause for concern. When asked how she could distinguish
between a child with ADHD and one without, a mother of two boys, one whom she identifies as very active, said, “It’s a good question. I mean I would like to know that too because, you know, when is a child just being normal? And what, what should be expected of a child to where you would go to medication at some point?” One parent believed the ambiguity of ADHD’s symptoms was as much a problem for doctors as it was for parents. She remarked, “Well, I don’t know how at Damon’s age how they diagnose ADD or ADHD. How do they know what’s normal and what’s not normal? I mean, can they really tell that young?”

Ambiguous symptoms mean that no definitive diagnostic tool exists for determining whether or not a child has ADHD. This compounds how difficult the diagnosis decision making process can be for parents. One mother, who already had one son diagnosed with ADHD and one more she thought probably had the disorder, complained, “I guess I wish there was almost a test that could tell you if he definitely had it, you know what I’m saying? Except for, you know, except for this person saying ‘Yeah, he may.’ or ‘No, he may not.’”

The story of one mother’s struggle over the years is particularly telling of how exasperating the process can be. Currently, her son is considered high risk based on his VADTRS 1 score but remains undiagnosed. While not necessarily troubling for her, her son’s behavior has been a source of recurring trouble over the years with teachers. Her story is quoted below to illustrate the struggles she and many other parents face.

Malcolm was about two years old, and he was going to a day care here in Lafayette. And the daycare owner actually encouraged me to go and see about getting him on medication because she thought he may be ADHD. Because she was a social worker and... or had retired as a social worker, um, and then bought a daycare. Um, so I had many conversations with his pediatrician, and he basically told me that that was absurd. That at 2, you can’t really... um, label a child as ADHD because that’s entirely too young.
At the request of multiple daycare workers, she had more talks with her son’s pediatrician who agreed to write her out a prescription “if it would make my mind at ease.” She refused. Subsequently, her son was asked to leave two different daycares. Making the decision not to medicate him was tough, she said, especially when teachers approach you. She said, “As a parent, we want to believe that our kids are perfect angels, but then when another adult comes to you and says, ‘Hey, there’s something going on with your kid,’ it’s… you’re kind of… you’re between a rock and a hard place. Who do you believe?’”

Malcolm’s mother says she is happy with the decision she made against diagnosis for now. At the end of the interview she remarked, “I mean, he’s a normal kid. I mean, in every sense of the word normal. Everybody has a different opinion on what normal is and what it’s not, but I view my child as a normal child. And if he can just keep getting the types of teachers that understand what children need at each age level, um, I’m pleased with it.”

Determining whether or not their children have ADHD is a process most parents agree cannot be done without teachers. Teachers spend at least 8 hours a day with students—more if the child is enrolled in before or after-school care—and many parents understand that they spend far fewer waking hours a day with their children. Furthermore, some parents view teachers’ understandings of behavior as more important than their own. One mother said:

I’ve always known he was hyper. Never thought he was ADD or ADHD—if he had started school and he was the bouncing-off-the-wall child that he is at home, I could totally see him being diagnosed because it would have interfered with his work. But he just understands that school is work, home is play. School is job, and when I come back home since I’ve been sitting all day, I can bounce off the walls. You know, so I guess when it interferes with what they need to be doing—I think of education as children’s jobs—and so if it interferes with their performance, with what they’re supposed to be doing as a productive member of society (laughs), then that’s where it becomes an issue that needs to be addressed.
ADHD, then, is most harmful if it disrupts children at their “jobs,” and teachers are the people who have the best perspective of the extent to which these behaviors are problematic. Many parents admitted that they saw no problem in their children’s behavior until a teacher approached them. They thought their children were “just being kids” and that their behavior was “normal.” Below is an excerpt from an interview with a mother whose daughter has been diagnosed with ADHD:

Interviewer: How did you learn she was having a problem? What were some of the things you noticed?

Parent: Well, actually we didn’t notice at home. They noticed it at school. And they done an evaluation on her at school, the counselor did. They told us to bring her to the doctor, have her evaluated by a doctor. So we did, and that’s how we come up with that.

I: So you were not noticing any problems at home really?

P: Not at home. Except that I knew she was hyper. But I didn’t think it was a problem cuz kids are hyper.

Teachers admit that sometimes they believe parents “are in denial” about their children’s behavior, especially at school. And they do their best to inform parents even though the information they are able to share with parents is strictly regulated. Teachers are explicitly forbidden from telling parents that their children have ADHD or any other disorder because they are not doctors and because they could face legal action from parents. One teacher said:

Usually we have to do all the work. But you can’t come out and tell the mother or the parent, “Oh, um, your child is ADD or ADHD, and they need to get on medicine”… So you have to present it in a nice, sugarcoated way that maybe you should see your pediatrician about these behaviors. That’s the way I’ve approached it whether I’ve thought a child was autistic or—which every year I seem to get one—or ADHD. You just have to present it, “This is what your child does, and this is what others his age are doing. Maybe you should take this to your pediatrician.” And that’s the cozy way to send them without getting myself in trouble.
Several teachers mentioned that by the time they go to the parents to address the possibility of ADHD or urge them to see a pediatrician, they have exhausted all the other methods that they have at their disposal to handle the behavior. Teachers try to accommodate students, especially young students, the best they can by allowing them to get up and move around for various activities like songs and dances. One teacher let a child have a stress ball that he could squeeze anytime he felt he needed to move around. One teacher said, “You pull all the tricks out of your hat and see what works and hope that one of them does. And if not, you pray for May really quickly.”

A teacher’s role in the diagnosis process is a precarious one. Teachers’ perspectives on classroom behavior are critical to fully understanding a child’s behavior and to actually receiving a diagnosis (teachers must fill out behavioral checklists, which are forward to doctors). Although their ability to address behavioral issues with parents is highly regulated, teachers understand the value of their perspective and believe it is important that they discuss behavioral issues with parents. Nevertheless, many parents worry that teachers are overly quick to assume children have a problem like ADHD. When asked if she believed teachers were in a good place to help make decisions about ADHD diagnosis, one mother replied, “No, I don’t think so. I think if a kid gets up—cuz their excuse was, ‘Oh he just gets up and go sharpen his pencil without asking.’ So that, that… he’s distracting the class so he’s ADHD. You know, stuff like that. So no, I don’t think all of them are, um, can make that professional decision, you know?”

Teachers commented that diagnosis typically occurs during or after 1st grade. Only those students who have “extreme” cases or have been in structured environments like daycare or Head Start (where these behaviors are most visible) are diagnosed by kindergarten. Many kindergarten
teachers feel as though they cannot do much if they see a child who exhibits ADHD symptoms because they believe doctors are reluctant to diagnosis children at that age.

In the ADHD literature, diagnosis appears to be a gendered process. Boys are diagnosed more often than girls (CDC 2011) although some research suggests that girls are less likely to be referred for treatment for their ADHD problems (Rucklidge 2010). Symptoms differ between boys and girls as well. Research suggests that boys with ADHD are more likely to be hyper and girls are more likely to be inattentive (Rucklidge 2008); girls have greater problems with “intellectual functioning” than boys with the disorder (Gershon 2002).

In this study, gender also appears to be significant. When asked which children were diagnosed with ADHD most often, many teachers responded that it was more common to have boys with ADHD than girls. This observation reflects a historical trend of gendered differences in diagnosis beginning with Still’s (1902) work. Following the aforementioned trends in the ADHD literature, some teachers made a further distinction in diagnosis by subtype. They believed boys were more likely to be hyperactive than inattentive.

In their descriptions of ADHD, teachers repeatedly talked about how mothers were involved in the process of diagnosis and treatment. In 20 teacher interviews, interactions between teachers and mothers regarding ADHD-related issues are recorded at least 14 times. It appears that mothers are the ones talking to teachers about behavioral problems. Mothers are taking their children to the pediatricians. And, perhaps most importantly, mothers are making decisions concerning ADHD diagnosis and treatment. Like Singh (2004)’s research suggests, it appears that there is something problematic and potentially pathogenic about mothers and their sons.
Treatment

For both teachers and parents, medication is seen as the most typical—if not only—mode of treatment for ADHD. But medicating a child is a complicated process often filled with intense negotiation among teachers, parents, and doctors. Parents (and some teachers) tended to have strong feelings concerning medication. They either wholly supported the medicine or were resistant to it.

Many parents, especially of children already diagnosed and a few parents who had seen a child diagnosed and treated for ADHD, claimed that their children completely changed—for the better—once they were on the medication. One caregiver, a grandmother raising two of her grandchildren, was awestruck at the change in her grandson’s behavior after he was medicated. And the change was enough to make a considerable difference at school. One day, the grandmother forgot to give her child his medication and was called by school and asked to come get him. The grandmother went to school and, instead of taking him home, gave him his pill. She said:

That afternoon, I went back to the school to get him, and the teacher said, “It’s amazing.” And I said “What?” And she said, “It’s amazing what the medicine does.” She said, “Without it, I don’t want him in my class. At all.” She said, “But as long as you give him his medicine, he can come to my class.” She said there is a big difference. She said it’s like night and day. She says, uh, “Give the doctor a message for me.” I said “Ok, what? “Tell him please don’t stop giving it to him.” It makes that much of a big difference.

Another mother described her godchild as “unbearable” to be around unless he took his medicine, which made a world of difference. Still another commented that she was “ready to pull her hair out” until the medicine made her son more calm and enjoyable.

Not every parent shares the same positive attitude about ADHD medications. In fact, several parents voiced strong opinions as to why medication is not an appropriate way to treat the
disorder. First, they noted the effects of the medicine as a reason why it does not work. Children on medications to treat their ADHD were often referred to as “zombies;” this description is mentioned 20 times in the 51 caregiver interviews. Parents mentioned that the medicine worked to calm the children down—but to an extreme. The children were often seen to be “zoned out” or withdrawn. If the effects were strong enough, it kept children from “functioning normally” in a classroom, which, they argue, is not any different from having no medication at all. While these changes in behavior could be alarming enough, some parents suggests that the damage goes further. A child on medication is seen to be robbed of something in his or her childhood; as one mother put it, a child on medicine “is just not a kid.” Furthermore, children may be seen as losing their identity to medication. As one mother simply put, “They don’t know who they are” anymore.

Another reason parents and teachers may be against medication is because it is seen as a “crutch,” an easy way, and a ready-made excuse for handling children’s problematic behaviors. One mother called treating children’s behaviors using medication a “copout.” When asked why she thought some parents chose to treat their children, she said, “It’s easier, you know? And it would be easier if I just gave my six year old medicine.” Some parents believe that medicine also becomes a way to justify a child’s actions—whether they are good or bad. Malcolm’s mother (mentioned earlier) recalled two different instances illustrating this. The first was a conversation she had with a friend of hers whose child, Ty, is diagnosed with ADHD and taking medicine: “And I said, ’Man, Ty is being really good, um, really good today.’ And the dad said, ‘That’s because I gave him his medicine today.’” In the second instance, she remembered someone saying, “Oh, he kicked the ball after I told him not to … but he didn’t take his medicine today.” Many parents believe that medication has become a way for children themselves to
explain their actions. Again, Malcolm’s mother provided an example. When a friend of hers asked her son why he did something he was not supposed to, the child replied “‘Because I didn’t take my medicine today.’” One parent commented that once children understand they have ADHD, they know that “I’m the bad kid, so now I have to be bad.”

Once caregivers decide to treat ADHD with medication, they must work to find the right dosage for their children. This, like the diagnosis process itself, is often complex. Parents talked about how they chose medicine to fix the problems of hyperactivity and inattention at school but ended up with children who had issues with extreme aggression or suicidal thoughts. One teacher discussed how she was working closely with a mother of a boy in her class to get the dosage just right; she said, “We’ve had to try 3 weeks at a time with several different kinds [of medicine] because what would work wonderful here, he was extremely depressed at home. Talking about death. I mean, for a 6 year old, that’s crazy.”

Ultimately, treating ADHD with medication is about achieving balance. One mother who worked at a daycare struggled with this problem when she saw ADHD-like behaviors in the children she cared for. She said, “I mean, of course you don’t want the kids hyper, won’t sit down, won’t listen. That is very irritable [sic], especially to the other kids. But when they’re given the medicine, they’re like zombies, and we don’t want to see them like that either.”

As one teacher mentioned, “medication is not always the answer.” But it is important for parents to understand that there are consequences to not choosing medicine for their child, especially once teachers recommend it. One teacher talked about her 14 year old, who was believed to have ADHD by his teachers. She said:

And this is what I was told by teachers, and I was told by every single teacher ever year. “He needs medicine. You need to bring him to the doctor. He needs medicine.”… I’ll tell them [the parents of children she thinks may have ADHD] what I chose to do, and I chose not to, not to put him on medicine. And there’s
natural consequences and be prepared. Be prepared. What are you going to do for a child at home who is not the ideal, typical student? What can you do at home? Because he is going to come home—he or she is going to come home with notes. We’re just not all made for this setting. Bottom line.

Other means of controlling ADHD were mentioned during the interviews in place of or as a complement to pharmacotherapy. A few parents said that they might seek (if diagnosed in the future) or had sought counseling for their children. One woman whose daughter had ADHD reported that she had counselors that either visited at home or would take her daughter to ADHD support group meetings. Several teachers mentioned the importance of behavioral modification, which they typically recommended in conjunction with medication. One teacher said

I think medicine helps some. I think behavior modification helps some. I think a combination of the two is probably the best way to go. I think behavior modification alone is the first thing to try, and if you’re not really making a whole lot of progress in that department, then maybe a little bit of medicine along with—but never without the behavior modification. Because the medicine alone rarely fixes 100% of the problem.

Alternative treatment options also included increasing physical activity or changing the child’s diet. Dietary changes most commonly referred to eliminating red dyes and sugar. Some caregivers also mentioned restricting processed and refined foods while increasing fruit and vegetable consumption. Herbs and supplements also featured prominently in alternative ADHD treatment. One mother, who was studying to be an herbalist, talked about the course of treatment she chose for her daughter once she was diagnosed:

I started treating her with B vitamins. Um, one in particular is called Nutri-Calm. It has all the Bs in it, pantothetic acid. Um, also I started giving her some brain food like flaxseed oil and omega 3s, and um, along with that, I gave her Valerian [root] at night in small doses which helped to calm her cuz what happens a lot of times is the synapses in the brain fray and so the neural transmitters in the brain is firing constantly and so it’s not… it’s not able to slow down. And so that what’s happening: they’re not able to control their behavior or even their thoughts. So addressing [that] the nervous system and the brain works together, that helps them be able to focus. And another thing I also give her is called Focus Attention, and it has things that help focus—and I can’t think of the names of some of the
ingredients in it, but I have my book—but um, there are some things like gamma in it, um, linoleic acids and things that help to focus.

Finally, several participants noted the importance of prayer to treat ADHD. The herbalist mentioned above, for example, talked about how she paired herbal supplements and prayer to treat her daughter’s ADHD. She said, “Thankfully, between prayer—because I am going to acknowledge that it was through a lot of praying, coming against a lot of spiritual things that she [her daughter] experienced emotionally when I was pregnant for her because I had a very stressful pregnancy—um, you know, praying and uprooting some things in the Spirit helped her as well as the natural herbs and alternative treatments.”

This section shows that, like diagnosis, choosing a treatment plan for ADHD can be an emotional process. By far, the most common mode of treatment mentioned during the interviews was medication. Several caregivers saw significant improvement in children—either their own or children of friends and family—treated with ADHD medications. While some parents were open to medication, many parents were hesitant or completely against using it. Caregivers cited the sometimes devastating side effects, the irresponsibility in parenting, and the negative message medication sends to children as reasons not to consider it as a treatment option. Medication is not the only option parents have for treating their children’s ADHD. Changes in diet or physical activity, herbal remedies and supplements, and prayer were all alternatives to mainstream treatment options.

**Living with ADHD and its Consequences**

The effects of accepting a diagnosis of ADHD extended beyond concerns with treatment. Because ADHD disrupts “normal” childhood behavior, ADHD children often bear considerable consequences in the community and at school because of the disorder. While only a few parents
mentioned instances of judgmentalism from others—rude comments or mean stares, for example—they noted several problems of passive aggression from the people they knew. Most parents of children with ADHD reported that they could not trust anyone to take care of their children; even if they were willing to trust others, parents reported that many people refused to deal with the children’s problematic behaviors. One mother described what it was like to find help with her two sons, both diagnosed with ADHD, while she attempted to go to work and school:

Interviewer: How has your family life changed since they’ve gotten diagnosed?

Parent: It’s hard for me to find someone to watch them. That’s why it was very hard for me to be stable job-wise. I couldn’t work evenings. I couldn’t work weekends. Cuz it was very difficult for me to find someone to watch them.

I: Do y’all have family here?

P: Yes, but they don’t want to deal with it.

I: Even now that they’re on medicine?

P: Uh huh. They don’t want to deal with it. And like now it’s the summer and stuff, it was very difficult. I didn’t know what to do. I couldn’t find anyone to watch my 13 year old. But my dad, um, volunteered to watch him. So…

One mother shared that she and her two children had been invited over to her brother’s house for Thanksgiving dinner. When she told her brother she would have to decline the invitation because her ADHD son was having some issues, she said that her brother was relieved that they would not be coming. Instead of a positive response from her family, the mother felt shunned. She said, “My brother of all people should have looked at me and said, ‘It’s ok. If it happens, we’ll deal with it when it comes…’ No, they appreciate the fact that I won’t go to their house because my son has problems.” Yet another mother who has three boys with ADHD said that her children loved to go outside and play with other children in the neighborhood but that
they were often not allowed to go into their neighbors’ houses. Because two of the boys were close in age, they often played together. The mother said, “If you hear ‘ding dong’ at your doorbell, you’re not getting one. You’re getting two. So I guess that might be why, you know, double trouble. For the most part, um, yeah, if my kids show up at somebody’s doorstep, they usually send their kids outside. Breaks my heart.”

Parents are not the only ones to treat children with ADHD differently; some children reportedly do the same. Even for children in kindergarten, first, and second grade, children were believed to be able to recognize children with ADHD as “different” than “normal.” One mother described the interaction her son, Taylor, had with the child of a neighbor who had been diagnosed with ADHD.

The kid across the street—his mom’s actually a teacher—and he’s been diagnosed ADD, not ADHD. And he’s, he’s a good kid... But all the other little boys in the neighborhood don’t play with him. It’s cuz he’s different. He doesn’t interact the same. And I asked Taylor, “Baby, why aren’t you playing with your friend?” “Mom, I tried, but it’s just really hard to play with him like normal.” I mean, I’ve talked to him, but he is... He is just a little bit different than all the other boys, so he doesn’t fit into their little group. It’s sad. And when he’s over by himself, I try to get Taylor to play with him, you know, one-on-one because that’s got to be easier than trying to play in a big group of boys. But still, it doesn’t quite work out. And I don’t know exactly how he got diagnosed or anything like that, and I didn’t even know he had it until his mom said it in passing one day. And then it was like, “wow,” you know? There’s more about it that I’m not familiar with to the point even my child was like, “He’s just different.” “That stinks, Taylor. You should be nice to him.” “I am nice to him. I just don’t want to play with him. I’m never mean, Mom. I just don’t want to play with him.” So I don’t make him play with him anymore, but I ask him to say “hi” to him, and he does. And I can see how, if that kid has to deal with that at school all the time, how even, even medicated and seemingly calm and relatively stable and mild, that even then it would turn into a behavior problem. I mean, constant rejection from your peer group? That stinks.

In classrooms, there are additional consequences of ADHD. While some parents report that their children are treated better by teachers who know of their child’s disorder (e.g., being more lenient on them in terms of discipline), many feel the children are treated worse. One
parent who was actively involved as the chair of the parent-teacher committee at her school said that, unfortunately, labels do get applied to children early on. This is especially true when the administration is trying to generate class rosters for the following school year. She said, “When they’re merging all the kids and separating them, they can’t put all the good kids in one class and all the bad kids in another. They have to put a few of each to balance out the classes.” This label translates into differential treatment in the classroom. A mother of three who has a nephew diagnosed with ADHD and who worked closely in the school system said:

Parent: When a teacher sees a kid that’s diagnosed as ADD or ADHD, they just kinda like, “Oh Lord, here we go. Another bad one.” Or “One that doesn’t pay attention.” Or “My test scores are gonna go down this year.”

Interviewer: So even if they know nothing about the child, if they know that label—

P: I think so. I think it’s a bad label to have… I don’t think they can say, “Oh, gosh. Poor thing he has ADD. We need to work with him a little more.” I think they, the teachers look at it like “Oh Lord, another kid.”

One mother acknowledged that the teachers who worked with her at a nursery school were quick to blame one particular child who was identified as being a troublemaker. She said she realized how bad it had gotten when the child was blamed for something and he was not even at school that day.

Few families believed their lives would change much if their child was diagnosed with ADHD in the future. Based on the accounts of those parents who had or knew children with ADHD, there were significant consequences both at home and at school to being diagnosed. It was more difficult to find care for children with ADHD from family and neighbors. Even peers were reported to treat ADHD children differently by avoiding them or teasing them. The stigma of ADHD also carried into the classroom. Because children with ADHD have behavior problems, they were often identified early so that they could be put in different classrooms.
Even before school began, some teachers already knew which of their students may be difficult in the fall. Parents reported that teachers who knew of their child’s diagnosis ended up treating them differently in the classroom. Accepting a diagnosis of ADHD then should not be taken lightly.

**Causation**

Thus far, this chapter has traced parents and caregivers’ understandings of the natural history of ADHD. It began with an examination of signs and symptoms adults believed were core to the disorder; from there, it examined the diagnosis process through treatment and the diagnosis outcomes and consequences. Etiology, a significant portion of ADHD’s natural history, has been left untouched to this point, however. ADHD causation was difficult for many participants to address without some level of uncertainty. Parents and teachers were hesitant to answer questions related to ADHD’s etiology. Few respondents were clear as to where the behaviors came from or why the disorder seemed to be increasing in frequency each year; when asked about ADHD etiology, almost every person’s response began with the phrase “I don’t know” before expounding further.

In the research community, great effort has been exerted to explain ADHD’s causal mechanisms, and endless explanations have been proposed. Faulty neural pathways, shifting educational culture, and maleficent pharmaceutical companies are among those that been implicated. As is true in academic circles, a single causal model of ADHD does not emerge in the lay community interviewed during this research project.

Most people were familiar with more than one etiological model, and several of these models are discussed in further detail below to highlight their differences. Models of “mother
blame” and “body blame” emerge as the primary models parents hold and are discussed first. Next, alternative models of ADHD causation—namely diet and overstimulation—are examined. Finally, this section addresses the relationship between gender and etiology.

Mother Blame

In Singh’s (2004) analysis, mothers of children who were diagnosed with ADHD often began their illness narratives through a lens of mother blame. Accountability for their children’s problematic behaviors was imposed internally through self-blame and externally through reactions from children’s fathers, fellow mothers, school officials, and medical professionals. In other words, bad parenting, and especially bad mothering, is the cause of so-called “bad” or deviant children. This model of ADHD causation is one of the most common mentioned by caregivers and parents alike in this research. Children are suffering from a deficit in attention, but it is a lack of attention from parents that causes them to be inattentive in classrooms. When asked about how she could distinguish between a child with ADHD and one who does not have the disorder, a mother of three responded:

I don’t know. There’s a fine line. Um, my nephew is diagnosed with ADHD, but, um, I technic ally don’t see it. I think it’s a lack of, you know, parenting skills on my sister’s part. I think a lot of people are just quick to label it without going a little further, you know? A teacher is quick to label it, and the parent, it’s a quick fix or they think it’s a quick fix. I think it’s maybe lack of wanting to— cuz a lot of times when you punish a child, you’re punishing yourself too. If they can’t go out to play, you have to stay in the house with them. So I think it’s sometimes laziness. But I do believe there are some children that the parent has done everything they could do… just… they have those few...

She went on to say:

I mean, my husband doesn’t even think that this is a legit thing. He thinks that it’s kids not getting disciplined. He just, he believes, you know, in “If you spare the rod, you spoil the kid.” That’s kind of how he thinks, that they’re not getting disciplined at home and they’re not getting enough attention at home and this is how they’re going to get their attention—whether it’s good or bad, they’re gonna get that attention no matter what.
And some teachers seem to agree. After telling the parents that there was a problem with their child’s behavior at school, a teacher said the parents denied having any problems at home. The teacher responded, “Well, yeah. Because they have no rules at home.”

Parents are potentially putting their children at higher risk of developing ADHD if they do not set “boundaries” at home. Additionally, they may be increasing the chance for problems if they are seen as uninvolved or too busy. One teacher said:

I mean, in my experience, it’s always the single mom who comes with her story, “Oh, I work all the time, and I don’t have time for him, you know, or her.” Whatever. Which I’m not saying that’s, that’s the sole reason. But I mean, you know, it’s your lifestyle. If you go and go and go all weekend, you can’t expect that child Monday morning to put the brakes on.

This quote hits on another significant point in a model of mother blame. Single mothers are often seen to be more problematic than married mothers. Because they often work and have no other adult in the household to share parenting responsibilities, single mothers are seen as overburdened, too busy, and uninvolved. One mother and elementary school teacher said that it is often impossible for single working mothers to maintain a balance between work and home; the result is that the children are “neglected.” Because they are too tired after working all day, one mother and a teacher at a high school in a neighboring parish, said, “They don’t do the things that they should be doing with their children.” A bias against single mothers is evident among teachers as well. Some teachers responded that most, if not all, of the children with ADHD they have seen over the years were children of single mothers.

In the previous chapter, caregivers and teachers explained what was expected from parents. If parents failed to meet these expectations—if they fail to be involved, if they did not provide structure and discipline and routine—ADHD was a likely result. Many parents believe problematic behaviors that develop because children do not receive enough attention at home.
cannot really be considered a biological disorder. What appears to be ADHD is actually a problem with the home environment. Using a model of mother blame delegitimizes ADHD, denying it a claim as a “true” or “real” disorder. One parent of two remarked that ADHD was an “overused” label that has become a “diagnosis du jour. It’s an explanation for behavior problems or conflict in families.” Many parents commented that because they believed it to be overly diagnosed, they would examine the situations of families with children who were struggling with ADHD-like behaviors. Often, these parents concluded that the child “does not really have a problem” and the label of ADHD should be denied to them.

When a parent is believed to be using a label of ADHD inappropriately for their children, they are said to be “taking an easy way out” or using the disorder as an “excuse” or a “crutch” for their bad parenting. One mother of two remarked, “I don’t try to find the easy road out as far as me. And parents who… I’m not saying… I can’t say all of them do it, but from what I’ve seen, they say, ‘Well, that’s just the way he is.’ And they find an excuse for it rather than, uh, discipline the child, punish the child, take things away.”

A model of mother blame suggests that parents, especially mothers, are responsible for the problematic behaviors of their children. Mothers are seen as not giving their children enough attention or failing to meet the expectations of parenting involving structure and discipline. Among women, single mothers pose the biggest risk to children developing ADHD because they must but often fail to find balance between work and home without “neglecting” their children. Because ADHD is seen as the result of a poor home environment in this model, parents believe that a label of ADHD should be denied to these families. Instead, parents of children who suffer from ADHD-like behaviors should not be allowed to subject their children to a medical label with possible medical treatment but should work on fixing the problems in their home life.
The primary competing viewpoint to a model of mother blame is one that considers ADHD not as “badness” but as sickness. In a model of brain blame, responsibility for children’s behaviors is shifted from mothers to the child’s body. It is something “in them,” something they cannot control. Most importantly, because children are “programmed” that way, it is, as one mother of two said, “not something I could control.”

A signature feature of a model of body blame is that children come into the world already having the disorder. According to parents and teachers, children can “get” ADHD in one of two ways. First, ADHD can be viewed as a genetic or hereditary disorder, and children develop it because it is part of their biological makeup. One woman, a mother of two who works at a nursery school, said, “I think it’s a chemical imbalance on the parents’ part. Um, starting from the daddy with the, the—you know, the seed and the sperm. I think it’s just what’s in the blood, what’s in the genes.”

Children can also develop ADHD in utero. Using alcohol, drugs, or tobacco was the most common connection made between diagnosis and pregnancy. One mother did mention that a stressful pregnancy resulted in her daughter’s ADHD. Another mother described how her daughter’s premature birth left her “not fully developed” and how doctors warned her that disorders like ADHD would be likely in her daughter’s future.

Both of the modes of transmission mentioned above result in the same outcome for children: an alteration in brain chemistry. More specifically, ADHD is viewed as a chemical imbalance. Beyond that, however, the model of body blame remains vague. Caregivers and teachers alike mention very few details connecting a chemical imbalance to inattention and hyperactivity. When talking about her nephew who she says has severe ADHD, one woman
simply said, “Something is just not right in that little boy’s brain. That it’s misfiring or not connecting.” Only one mother provided a more descriptive explanation of how the brain affected children’s behaviors. She said, “What happens a lot of times is the synapses in the brain fray and so the neural transmitters in the brain is firing constantly and so it’s not… it’s not able to slow down. And so that’s what’s happening. They’re not able to control their behavior or even their thoughts.”

A model of body blame holds that children who have ADHD act the way they do because “this is the way they are.” Their actions are beyond their control and are a byproduct of a change in their biological makeup. Children with ADHD, as one grandparent whose grandson has autism and ADHD and is also heavily involved in autism support groups said, deviate from the “neurotypical” because of some inherent biological characteristic.

What distinguishes the model of body blame from the model of mother blame discussed above is not so much the source to which the behaviors are attributed but the validity each model carries. A model of body blame in which ADHD is seen as genetic/heredity or caused by something during pregnancy is one that describes “real” ADHD. “Actual true cases” exist when there is a problem with brain chemistry, and these are best treated with medications that can correct the imbalances. The model of body blame provides children with significant biological differences—and their parents—a legitimate way to talk about their children’s behaviors as sickness and not badness.

*Alternative Etiologies*

Although models of mother blame and body blame were the most common mentioned, several other possible causes for ADHD emerged during parent and teacher interviews. Both diet and overstimulation were targeted as causes for ADHD and are discussed further here.

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Following models of mother blame and body blame, diet was the next most commonly mentioned cause for ADHD among parents. Red dyes, sugar, and wheat products were seen as foods that should be limited for children with ADHD. One mother, mentioned earlier for her interest in herbal medicine, said that she believed children could be healed of ADHD if parents followed a few simple steps to alter their children’s diets:

- Staying away from foods that are high in additives and preservatives. Red dyes.
- Limiting the sugar intake. Giving them lots of protein, which is good for the brain. Foods that are high in fiber to help cleanse their little bodies and colons.
- Just giving them, uh, good things—healthy fruits and vegetables is what will help children with ADHD—taking away the sugars from them. That is so important.

For a few parents and teachers, diet was mentioned as a cause of ADHD although few causal mechanisms explaining the link between children’s behavior and diet were proposed. More often, it seems, diet was mentioned as a treatment option with caregivers only giving it indirect causal significance. It appears that parents were usually fine with their children’s diets until diagnosis occurred; only when a child was diagnosed were changes made.

Although diet is seen as a controversial factor in ADHD diagnosis, it was fairly salient even among caregivers who subscribe more strongly to other models. Below is a portion of an interview with a mother and grandmother of a boy who has both ADHD and autism. As mentioned previously, they are actively involved in autism awareness groups and spend considerable time and money attending conferences on both ADHD and autism. Both firmly believe in the biological basis of ADHD. Still, they espoused dietary changes and herbal supplements to help with the boy’s ADHD symptoms.

Interviewer: As far as ways to treat ADHD, I know you have been doing medication. Is there anything else that you’ve heard is good for treating ADHD?

Mother: Oh, now we haven’t really tried it because it’s nearly impossible, but I know that you can do it by diet.
Teacher: We limit his sugar.

M: We limit his sugar. As much as possible.

G: Severely. No sugar if possible.

M: Like, no red dyes if possible.

Teachers also mention the role of diet in ADHD causation and treatment. Like parents, they say that sugar and “junk” should be eliminated or at least monitored in children’s diets.

While diet was mentioned by teachers, overstimulation was a more common explanation among the group as a causal explanation for ADHD. Both schools and teachers themselves were considered “not as exciting as video games” the children were thought to play constantly. One teacher remarked:

If I had to guess anything, it would just be the overstimulation of the… the computers and the games. It’s like they constantly need something to keep them going. And when it’s calm in the classroom, they can’t control—and I mean, I know some children are like that just from little toddlers… but when you’re constantly being stimulated by action, action… now you have to have the bells and the whistles… And that’s what I think. The overstimulation of the generation.

Another added:

I mean, personally, I think it has to do with how much screen time they get. Um, from infants, how much brain stimulation they’re getting these days as opposed to 10 or 20 years ago and that makes—maybe it causes changes in the brain that require more stimulation when they come to school. I mean, I can’t complete when it comes to video games, you know? … It can be hard to engage them when they’re used to lights and colors and pictures flashing at them all day long.

Based on these two accounts and the comments from other teachers on overstimulation, it is unclear whether an increase in screen time causes changes to behavior because it is a learned pattern or because it alters biological functioning.

This section explored two other models of ADHD etiology: diet and overstimulation. These models are less commonly mentioned than the models of mother blame and body blame,
but their presence in the discourse surrounding ADHD shows that considerable diversity in lay perceptions of the disorder exists.

_Etiology and Gender_

One of the aforementioned models of causation is titled “mother blame,” so the interplay between etiology and gender is perhaps expected. In the model of mother blame, it is the relationship (or lack thereof) between a mother and her child that is problematic and can lead to disorder; because boys are diagnosed more often than girls as mentioned above, it is the relationship between mother and son that is often problematic. According to this model, ADHD is the outcome when women fail to fulfill their social duties as mothers.

A model of body blame, by contrast, seems to be gender-neutral. ADHD occurs in both boys and girls and is caused by disruption in the brain’s (gender-free) chemical pathways. The descriptions parents provided of the model of body blame suggest that gender may play a more important role than it first appears. Although no explanations are given as to why or how it happens, fathers are thought to pass on ADHD through their genetics more often than mothers. Mothers seem to cause ADHD by something they do during pregnancy.

One mother of three, who had one son already diagnosed and was contemplating diagnosis of another son during the first interview, explained that ADHD, like the learning disabilities her children had, was inherited. She said, “And it comes from generations. His father, his father’s father, his father’s father’s—just generations…” A mother with three boys, all with ADHD, had done some research into her family history and concluded that it must be strongly hereditary. She said:

And if I had to guess, my grandfather had it, and my dad had it. Because I see symptoms in my dad now that my children have, you know? But my dad’s 56 years old, so he’s not going to get tested now. But I see symptoms in him that my children have still today. And, um, my grandfather, I see the same things in my
grandfather. Now, my dad’s brother’s son was tested, and two out of the three of his kids have it also. So, and I’m sure there’s more in the family, but I don’t know that side of the family too much. I don’t know the rest.

One mother of two said she is already being proactive in treating her son with supplements because her husband has been diagnosed with the disorder.

If ADHD is hereditary and passed from fathers to sons, then fathers are technically at fault for their children’s conditions. This blame, however, is tempered by the fact that the ability for fathers to control what happens—to change whether or not their children are diagnosed—is beyond their control. For mothers, this is not the case. Mothers are believed to do something during pregnancy to cause their child to have ADHD. They use drugs, alcohol, or tobacco. They are stressed. By this logic, if mothers would take care of themselves and do the right thing, their children would not have ADHD. A father of one child with ADHD was asked where he thought ADHD behaviors came from; he replied, “She didn’t get it from me.” This is only minutes after he described his daughter’s birth mom as a heroin addict and with whom he has cut all ties. When one mother was asked if she believed ADHD was caused by the same thing for every child, she responded, “Like, um, maybe a mother who does drugs, you know? Say she takes heroin every day. If her child was born with ADHD and there’s nobody else in her family tree that doesn’t [sic] have it, maybe it would be from the drugs.”

While a model of body blame appears to be gender-neutral, it is anything but. Parents’ descriptions of the model indicate that fathers tend to contribute to their children’s risk of developing ADHD passively. They are carriers of genes passed down to children during conception. These genes are neither stoppable nor controllable. Mothers, however, seem to be actively blamed more often for causing their children’s ADHD—even through the lens of a body
blame model. Stress and substance abuse during pregnancy contribute to the likelihood of a child developing ADHD and could be avoided.

Conclusions

This chapter has examined lay concepts regarding ADHD’s natural history. It began with a look at discerning the disorder’s symptoms. Both teachers and caregivers identified inattention and hyperactivity as overarching signs of ADHD. Teachers were more likely to include a third major symptom, impulsivity, in their explanations while parents often added aggression to their list of the disorder’s signs. Next, the process of diagnosis—the struggles of those making the decisions and those who are at highest risk—was examined. Treatment options followed. Medication was the most widely known and most used treatment for ADHD. Other treatments do exist, however; these include changes to diet and physical activity, use of supplements, and behavioral modification. How the disorder affects daily life for those diagnosed was discussed next. While most parents believed that a diagnosis of ADHD would not change the quality of life for their families, caregivers of children with the disorder found that the relationships they and their children had with family and friends were strained. They also believed their children were wrongly targeted in schools. The last section of this chapter described the variability in etiological models in the lay community. ADHD is a disorder imbued with ambiguity, and this shows clearly in the diversity of models pertaining to causation. The most salient models were those of mother blame, in which mothers are responsible for causing ADHD behaviors in their children, and body blame, in which the child’s body is held accountable for the presence of ADHD behaviors. While a model of body blame appears to be gender-neutral, the discussion
above shows that it is not. Mothers are still held faulted for causing problematic behaviors in their children if they failed to protect their children from harm during pregnancy.

Examining the natural history of ADHD from the perspectives of caregivers and teachers is an important step in this research process. Because health beliefs have been shown to impact the acknowledgement and treatment of sickness, it is important to understand how these conceptions of illness are formulated and negotiated, especially amidst ambiguity. Only then will it be possible to consider how these understandings affect the ascription of ADHD symptoms to children.
Chapter 9: Risk Assessment

The focus of Chapter 7 was to establish what is culturally understood to be normal in the microcosm of caregiver/home, teacher/school, and child. Once cultural expectations were clearly outlined, it was possible to define abnormality or disorder. More specifically, one could better understand the disorder of ADHD. In the last chapter, however, it should be apparent that there are competing definitions of disorder. Based on one’s model, or definition, risk of developing ADHD could be differentially assessed.

This chapter discusses risk assessment and symptom ascription in greater detail using two models as its guide: a model of caregiver stress and competition and a model of mother blame. What will be noticeably absent from this chapter is any treatment of a model of ADHD based on neurological dysfunction. While it is important to ADHD research to empirically evaluate the influence of biological factors on risk assessment and symptom ascription, no test currently exists to do so. The following pages are restricted to testing 1) the literature-based model that increasing stress and status competition in caregivers leads to higher symptom reports in their children and 2) the emic model that motherhood, especially single and possibly employed motherhood, is potentially pathogenic to children.

Caregiver Stress and Competition

At the outset of this research, three hypotheses were proposed to explain differences in ADHD symptom assignment in elementary school children. It was hypothesized that (1) among
all children in the study, caregivers who are exhibiting greater psychosocial and emotional stress will have children who exhibit more ADHD symptoms and will be more likely to adopt a diagnosis of ADHD for their children than those with less stress; (2) among children with higher socioeconomic status, ADHD-related behaviors and diagnosis will increase as academic, athletic, or other status competition increases; and (3) among children with lower socioeconomic status, symptoms and diagnosis will increase as familial pressure for additional economic resources increases. Each of these hypotheses is explored in the following paragraphs.

*Perceived Stress*

Hypothesis 1 states that as caregiver stress increases, a child’s assigned symptom level will increase. To test this hypothesis, comparisons between ADHD symptom level, caregivers’ perceived stress (PSS) and caregivers’ total reported health symptoms (HEALTH) were made. The health symptoms variable was included under this heading because PSS and HEALTH have been linked in previous research (e.g., Cohen and Williamson 1988).

Perceived stress in caregivers was significantly correlated with ADHD symptom level in children ($r=0.436, p<0.01$); as caregiver stress increases, child symptoms of ADHD increase. Because caregiver-reported ADHD symptoms were also highly correlated with ODCD ($r=0.719, p<0.001$) and ANXDEP ($r=0.440, p<0.01$) symptom reports, it was hypothesized that PSS and symptom level for ODCD and ANXDEP would be correlated as well. This hypothesis was confirmed through correlation analysis. As caregiver PSS increases, caregiver-reported ODCD symptom level increases ($r=0.296, p<0.05$). This is also true for caregiver-reported ANXDEP symptoms ($r=0.584, p<0.001$).

Like other research has shown, perceived stress and reported health problems in caregivers was highly correlated ($r=0.647, p<0.001$). It is not surprising then that the variable
HEALTH is significantly associated with ADHD ($r=0.394, p < 0.01$), ODCD ($r=0.479, p <0.01$), and ANXDEP symptom levels ($r=0.406, p <.01$).

Based on the correlational analyses presented here, Hypothesis 1, which stated that there was a relationship between a child’s assigned symptom level and caregiver stress, was confirmed. This hypothesis held true not only for ADHD symptoms but also for ODCD and ANXDEP symptoms. As PSS increases in caregivers, reported symptoms in children for three different disorders increases. What cannot be concluded from these analyses, however, is the direction of causality. In other words, it cannot be said that an increase in caregivers’ perceived stress causes their reports of ADHD symptoms in their children to increase or that higher symptom levels cause caregivers’ perceived stress to increase.

**Competition**

Hypothesis 2 suggests that there is a relationship between status competition and ADHD symptom level. As competition increases, it is believed that ADHD symptoms will also increase. For this research competition was measured in two ways. First, seven items were included in Caregiver Interview 1 to describe the level of perceived competition at children’s schools (Table 9.1).

<table>
<thead>
<tr>
<th>Table 9.1: Parents’ perceptions of status competition at school by question</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The activities my child does now will affect if he or she goes to college.</td>
<td>3.22 (1.14)</td>
</tr>
<tr>
<td>2. I feel pressure to make sure my child is learning outside of school.</td>
<td>2.63 (1.22)</td>
</tr>
<tr>
<td>3. I believe my child is not learning enough in school to prepare him or her for the future.</td>
<td>1.63 (0.92)</td>
</tr>
<tr>
<td>4. My child’s school is too competitive.</td>
<td>1.22 (0.54)</td>
</tr>
<tr>
<td>5. I worry that if I let my child just ‘be a child,’ he or she will not do as well in school as the other children.</td>
<td>1.67 (0.95)</td>
</tr>
<tr>
<td>6. Other parents at my child’s school put their children in activities out of school to make them better parents.</td>
<td>2.90 (1.05)</td>
</tr>
<tr>
<td>7. It is important to give my child a leg up at school by giving him or her extra activities, books, or lessons.</td>
<td>3.10 (1.04)</td>
</tr>
</tbody>
</table>
During the second interview, caregivers were asked to complete the Superwoman Scale described in Chapter 5, a 13-item inventory (when questions 7 and 15 were removed) that measures how much pressure to compete or perform well caregivers (typically female caregivers) place on themselves (Table 9.2).

<table>
<thead>
<tr>
<th>Table 9.2: Caregivers’ responses to the Superwoman Scale by question</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Getting the best assignments and fast promotions at work is important to me.</td>
<td>2.67 (0.97)</td>
</tr>
<tr>
<td>2. I would be disappointed if my children did not qualify for ‘gifted and talented’ programs.</td>
<td>1.72 (0.80)</td>
</tr>
<tr>
<td>3. While it’s hard for most people to do, I think I can have a strong family life and a very successful career.</td>
<td>3.47 (0.74)</td>
</tr>
<tr>
<td>4. I would never consider a career that doesn’t automatically command respect from strangers.</td>
<td>2.70 (1.32)</td>
</tr>
<tr>
<td>5. Being known as a prominent person in the community is important to me.</td>
<td>1.81 (0.96)</td>
</tr>
<tr>
<td>6. I get very upset with myself if I forget something I’m supposed to do.</td>
<td>2.86 (1.06)</td>
</tr>
<tr>
<td>8. I feel I must socialize on the weekends even if I’m tired.</td>
<td>1.51 (0.83)</td>
</tr>
<tr>
<td>9. Being told that I’m great at everything I do would be an incredible compliment to me.</td>
<td>2.98 (0.99)</td>
</tr>
<tr>
<td>10. I think it is very important that parents provide multiple opportunities for their children in terms of dance, art, and music classes.</td>
<td>3.28 (0.91)</td>
</tr>
<tr>
<td>11. As a parent, I try to attend all of the school functions of my children.</td>
<td>3.72 (0.63)</td>
</tr>
<tr>
<td>12. I don’t care whether people notice things I do well.</td>
<td>2.23 (0.92)</td>
</tr>
<tr>
<td>13. Respect from coworkers and peers is very important for my self-esteem.</td>
<td>2.79 (1.06)</td>
</tr>
<tr>
<td>14. I model myself after other people who ‘have it all’—successful marriages, careers, and great kids.</td>
<td>2.12 (1.56)</td>
</tr>
</tbody>
</table>

First, the items in Table 9.1 were summed to give a total score of the pressure caregivers feel to have their children perform well in and out of school (ACHIEVE). The ACHIEVE variable was not significantly correlated with ADHD, ODCD, or ANXDEP symptoms. It was
also not significantly correlated with HEALTH or PSS measures. Furthermore, there were no significant differences in ACHIEVE scores by marital status, work status, or ethnicity.

Although the number of items included in Table 9.1 is relatively small, it is possible that these items did not all measure the same type of performance pressure. Four of the status competition statements—statements one ("The activities my child does now will affect if he or she goes to college."), two ("I feel pressure to make sure my child is learning outside of school."), five ("I worry that if I let my child just ‘be a child,’ he or she will not do as well in school as other children."), and seven ("It is important to give my child a leg up at school by giving him or her extra activities, books, or lessons.")—were summed to give a value that describes the level of pressure caregivers outside of the school environment to have their child achieve (PERFORM). No correlation was found between symptom ascription for all three disorders and the PERFORM variable. There were some interesting differences in the PERFORM score based on other variables, however.

PERFORM scores varied significantly based on caregiver work status. Working parents reported higher mean PERFORM scores (M=11.37, SD=2.11)—higher self-perceived pressure for their children to perform—than non-working parents (M=9.70, SD=3.25; t(48)=-2.118, p < 0.05). This may be because working parents, especially working mothers, are often tasked with handling the “second shift” alone (Hochschild 2003); after finishing their work days, they must put in another full shift of caring for duties at home. Balancing work and home may be stressful for parents, and parental stress can significantly impact the parent-child relationship (Menaghan 1991). The quality of the parent relationship is important to school performance, including language skill (Magill-Evans and Harrison 2001). Furthermore, the combined stress from work and home may limit the participation of the parent in the child’s classroom, which has shown to
be crucial to child’s school success (Grolnick et al. 1997). Mean PERFORM scores also varied significantly by receipt of assistance ($t(49)=2.268, p < 0.05$). Those receiving assistance of any kind had lower mean PERFORM scorers ($M=9.90$, $SD=2.84$) than those not receiving assistance ($11.62$, $SD=2.38$).

Mean scores did not vary considerably by ethnicity or marital status. Parental pressure to achieve is slightly higher for Whites ($M=11.00$, $SD=2.40$) than Blacks ($M=9.95$, $SD=3.27$) and for married ($M=11.08$, $SD=2.64$) than unmarried ($M=10.12$, $SD=2.88$) caregivers; these differences were not statistically significant. Although the PERFORM score is thought to represent a measure of parental stress, there was no correlation between PERFORM and caregiver stress as measured by the PSS ($r = -0.027$, $p=0.885$) or their reported health scores (HEALTH, $r = -0.005$, $p = 0.973$).

When considered separately, three of the school competition statements produced statistically significant differences in symptom ascription. Caregivers who agreed (by responding that they “agreed a little” or “agreed a lot”) with the statement “I believe my child is not learning enough in school to prepare him or her for the future” reported significantly higher ADHD symptoms in their children than caregivers who did not ($t(49)=-3.992, p < 0.001$). This relationship held for reported ODCD symptoms as well ($t(47)=-2.456, p < 0.05$); among caregivers who agreed with the statement, the mean ODCD symptom level was 12.67 ($SD=5.85$) but only 7.09 ($SD=5.13$) in caregivers who disagreed. There were no significant differences in ANXDEP symptoms between groups. These results are shown in Figure 9.1 below.
Caregivers who agreed with statement five ("I worry that if I let my child just ‘be a child,’ he or she will not do as well in school as other children") reported significantly higher ADHD symptoms in their children that those who disagreed (t(49) = -2.943, p < 0.01). ANXDEP scores were also significantly higher for caregivers who agreed with statement five (t(47) = -2.472, p < 0.05); although ODCD risk was higher in children of caregivers who agreed with statement five, the difference was not statistically significant. These differences are shown in Figure 9.2.
Figure 9.3 shows the differences in disorder risk based on caregivers’ answers to question seven of the school competition inventory (“It is important to give my child a leg up at school by giving him or her extra activities, books, or lessons.”). Although the mean ADHD symptom report is higher among caregivers who disagreed with this statement, the difference in means is not statistically significant. Significant differences were found for ODCD (t(47)=2.615, p < 0.05) and ANXDEP (t(47)=3.124, p < 0.01) symptom reports.
After measuring differences in symptom assignment based on the ACHIEVE variable, variability in symptom level was compared to caregivers’ scores for the Superwoman Scale described above. There were no significant correlations between the scale and caregiver-reported symptom levels for ADHD, ODCD, or ANXDEP. The Superwoman Scale was significantly correlated with perceived stress (PSS; \( r=0.388, p < 0.05 \)) and caregiver health scores (HEALTH, \( R=0.500, p < 0.005 \)). These variables are, in turn, significantly associated with ADHD, ODCD, and ANXDEP symptom level.

Mean scores for the Superwoman Scale differed by income. Those making less than $40,000 annually reported a score of 38.18 (SD =5.89) while those who made more than $40,000 a year reported a lower score of 34.38 (SD=3.81). This difference is not statistically significant (t(28)=1.69, \( p = 0.102 \)). There were no statistically significant differences in caregivers’ scores for the Superwoman Scale by work status, marital status, or ethnicity.

The purpose of this section was to examine the link between status competition and symptom ascription. While it was hypothesized that increased status competition would affect
symptom assignment in young children, this relationship does not appear to be supported based on the data above. Caregivers who do not feel their children are prepared for or by school (measured by statements three, five, and seven) did report higher symptoms for all disorders in their children. It is possible to attribute these differences to parents’ worries concerning how pre-existing symptoms may affect school readiness and not to status competition per se. Further empirical testing is needed to better determine the impact these hypotheses have on symptom assignment.

No relationship was found between status competition—operationalized by the PERFORM variable, a measure of perceived pressure related to childhood performance—and symptom ascription. Furthermore, the Superwoman Scale, a tool used to measure the level of stress caregivers feel to perform well for others, was not correlated with disorder symptom levels.

Hypothesis 2 posits that a link exists between status competition and symptom ascription, but it goes a step further than simple association. The design of this research has as one of its fundamental tenets the idea that disorder risk is associated with socioeconomic status and that different factors influence the ascription of symptoms within different socioeconomic groups. It was predicted that status competition especially affects children in higher socioeconomic groups. Among children with higher socioeconomic status, it was hypothesized that reported symptoms would increase as competition increased. Figure 9.4 shows how mean PERFORM scores vary by school, a proxy for socioeconomic status. These scores increase slightly as SES increases, but these differences are not statistically significant (F(3,47)=1.67, p >0.10). For the Superwoman Scale, mean scores are highest at Faulk Elementary, the school with the lowest SES, and lowest at Live Oak Elementary. As was the case with the ACHIEVE variable, differences in mean
scores for the Superwoman Scale across the four schools are rather small and not statistically significant ($F(3,39)=0.54$, $p > 0.10$).

In summary, this research does not support the hypothesis that status competition affects ADHD symptom assignment. There is also no evidence that status competition differentially affects symptom ascription based on socioeconomic status.

**Figure 9.4: PERFORM scores by school**

![PERFORM scores by school](image)

**Financial Stress**

Hypothesis 3 suggests that there is a relationship between symptom level and financial pressure; in other words, as financial pressure increases, symptom level is believed to increase. Three measures were used to indicate financial pressure. During their initial interview, caregivers were asked about their annual household income and whether or not they had someone from whom they could borrow money if they needed to (BORROW in Table 10). Additionally, caregivers were asked to tell if they were receiving one or more of several types of assistance (from child support to SSI; ASSISTANCE in Table 10). For the purposes of the
analyses discussed here, the ASSISTANCE variable was dichotomized into not receiving assistance and receiving one or more kinds of assistance.

Income was originally divided into six categories; because of the small number of cases in some of the categories, income was dichotomized (families making $40,000 or less and families who earned $40,001 or more) in the following analysis. Figure 9.5 shows the level of symptoms for all three disorders by family income. For all three disorders, symptom level was higher among those earning $40,000 or less a year. Differences by income were statistically significant for ADHD ($t(49)=1.870, p <0.10$) and ODCD ($t(47)=2.088, p < 0.05$) but not for ANXDEP.

![Figure 9.5: Symptom level by family income](image)

Table 9.3 shows the differences in mean reported symptoms by disorder for the variables ASSISTANCE and BORROW. Significantly higher ADHD symptom counts in children were reported for caregivers who were receiving some type of assistance than those who were not ($t(49)= -2.109, p < 0.05$). Again, this held true for ODCD symptoms ($t(47)= -2.118, p<0.05$) but not ANXDEP symptoms. Caregivers who reported having no one from which they could borrow
money reported significantly higher ADHD symptoms in their children than those who could borrow money from someone (t(49)=1.803, p < 0.10); this relationship did not hold true for ODCD or ANXDEP symptoms.

### Table 9.3: Mean disorder symptoms based on receipt of assistance and ability to borrow money

<table>
<thead>
<tr>
<th></th>
<th>Mean Disorder Symptoms (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ADHD</td>
</tr>
<tr>
<td>ASSISTANCE</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>28.57 (12.03)**</td>
</tr>
<tr>
<td>No</td>
<td>21.95 (9.37)</td>
</tr>
<tr>
<td>BORROW</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>30.92 (14.44)**</td>
</tr>
<tr>
<td>No</td>
<td>24.28 (9.99)</td>
</tr>
</tbody>
</table>

* significant at p < 0.10 level, ** significant at p < 0.05 level

In the previous section, the variables of perceived stress, total health score, and ADHD symptoms were related to one another. Some of these relationships persist when considering receipt of assistance and ability to borrow money. Total health scores were significantly higher for those receiving assistance (M=62.20, SD=17.72) than for those who do not (M=53.00, SD=12.60; t(48)= -2.005, p<0.10). There was no significant difference in perceived stress based on receipt of assistance. For this sample, it appears that not having someone from which to borrow money can be viewed as stressful; there is a significant difference in perceived stress between those who can (M=33.70, SD=7.91) and those who cannot (M=41.75, SD=11.33) borrow money from someone (t(47) 2.744, p < 0.01). There are non-significant differences in the total health scores between those who do (M=56.42, SD=16.13) and do not (M=65.17, SD=15.98) have someone from whom they can borrow money.

Based on the preceding paragraphs, it is possible to confirm that an association between financial stress—as measured by annual household income, receipt of assistance (ASSISTANCE), and ability to borrow money (BORROW)—and ADHD symptom level exists.
It appears that as financial pressure increases, symptom level does increase as suggested in Hypothesis 3.

Like Hypothesis 2, Hypothesis 3 goes a step further than suggesting the existence and direction of a relationship between these two variables. It specifically hypothesizes that financial stress is differentially felt according to socioeconomic status. That is, within a lower socioeconomic status, symptom assignment will be greater in families who are under greater financial stress. Because of the small sample size, it is difficult to make predictions at such a fine level (there are, for example, only 12 people in the entire sample who reported not being able to borrow money from someone if they needed to). Still, it may be possible to make simple comparisons among the groups. School assignment is used as a proxy for socioeconomic status in Table 9.4.

<table>
<thead>
<tr>
<th>School</th>
<th>ASSISTANCE</th>
<th>N</th>
<th>Mean ADHD Scores (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>J.W. Faulk</td>
<td>Yes</td>
<td>8</td>
<td>25.50 (12.65)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>2</td>
<td>33.50 (0.71)</td>
</tr>
<tr>
<td>Live Oak</td>
<td>Yes</td>
<td>10</td>
<td>26.30 (11.47)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>3</td>
<td>21.67 (10.69)</td>
</tr>
<tr>
<td>Prairie</td>
<td>Yes</td>
<td>6</td>
<td>26.83 (6.68)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>9</td>
<td>20.22 (9.83)</td>
</tr>
<tr>
<td>Ernest Gallet</td>
<td>Yes</td>
<td>7</td>
<td>38.17 (13.93)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>6</td>
<td>21.00 (8.70)</td>
</tr>
</tbody>
</table>

For those not receiving assistance at J.W. Faulk, the school with the lowest socioeconomic status in the sample, mean ADHD reported symptoms scores are higher than for those receiving assistance. At Live Oak, Prairie, and Ernest Gallet, ADHD scores are higher if families receive some sort of assistance. In low socioeconomic households like those found at J.W. Faulk, it may be that failing to receive assistance increases stress in households which, in turn, causes caregivers to ascribe more ADHD symptoms to their children. As socioeconomic status
increases, mean reported ADHD scores are higher if caregivers are receiving assistance. The benefits of receiving assistance in the lowest socioeconomic group disappear in higher socioeconomic groups. Perhaps in groups earning more money, being dependent upon someone else to help meet one’s financial expectations is actually more stressful than helpful. Another explanation could be put forth to explain the discrepancy in symptoms among the lowest socioeconomic group. The poor, especially African Americans (which most parents at J.W. Faulk were), face greater amounts of psychosocial stress in their daily lives than their peers (Sherman 1994). The John Henryism hypothesis suggests that, in the face of this sustained psychosocial stress, some African Americans exhibit “‘high effort’ coping” (Sherman 1994:166). In this research, it is possible that poor families who face great amounts of psychosocial stress (in part, because they are poor) may be trying to “make it on their own” without the help of state and government money. Sherman’s (1994) work demonstrates that active coping can raise blood pressure; perhaps it also raises reported symptoms in ADHD. While these speculations are interesting, there is a need for additional empirical testing to support these claims.

**Mother Blame**

In Chapter 8, a model of caregiver blame—or more specifically, mother blame—was outlined. According to this emic model, motherhood is potentially pathogenic to children. A good mother is one who is probably married, educated, involved and attentive, and disciplined and structured with her children. Although being a stay-at-home mother is preferred, most parents acknowledge that this is not necessarily possible in today’s world. If a mother works, it is oftentimes expected that she will have to meet greater demands than non-working mothers; she will have to come as close as she can to meeting the demands of work and the ideals of
motherhood. A bad mother is one diametrically opposed to the good mother: she is most likely single, uneducated, uninvolved and inattentive, and undisciplined and unstructured with her children. She does not adequately meet the balance required between work and home life. She either works too much or does not work but still spends too little time and energy with her children. This model suggests that good mothers will have good children; that is, if mothers follow the model of “good motherhood,” they will report fewer ADHD-related symptoms than mothers who do not follow the model. The following discussion is focused on assessing whether or not mothers are internalizing this model and rating their children’s behaviors accordingly.

*Demographic Profiles by Risk*

The emic model asserts that good motherhood is more common among certain groups than others. Marital, work, and education status all affect one’s likelihood of being a good mother. Mother’s age, involvement at school, and her ability or desire to meet cultural ideals of femininity and motherhood are paramount. This section is dedicated to exploring demographic characteristics by risk group to see if there are differences among groups and if these differences match a model of mother blame.

Table 9.5 shows differences in three variables—marital status, work status, and educational attainment of caregivers—by ADHD risk status of their children. Risk status was determined following initial VADTRS (teacher) evaluations. A greater percentage of caregivers of low risk children were married than caregivers of high risk children or children with ADHD; this difference was statistically significant ($\chi^2(2) = 5.073, p < 0.10$). In terms of work status, there was virtually no difference among the groups in terms of employment outside the home ($\chi^2(2) = 0.024, p > 0.10$). When non-working caregivers were removed from analysis, caregivers of low risk children actually worked the most hours ($M= 36.75, SD=8.01; high risk: M=34.73,$
SD=16.68; ADHD: M= 22.75, SD=16.74). The variation in hours worked by risk group cannot be attributed to differences in income among the groups (if non-working caregivers are again removed from analysis; F(2,24) = 1.424, p > 0.10).

<table>
<thead>
<tr>
<th>Table 9.5: ADHD risk by three caregiver variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child’s risk of developing ADHD</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Low</td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td>Diagnosed</td>
</tr>
</tbody>
</table>

The final variable shown in Table 9.5 is post-secondary education. Seventy percent of caregivers of low risk children and 65% of caregivers of high risk children had completed some type of education beyond high school. Although caregivers of children with ADHD have the lowest educational attainment, there was no statistically significant differences among the groups \((\chi^2(2) = 1.901, p > 0.10)\). What appears to be different is the range in educational attainment between and among these groups. Caregivers of low risk children had the tightest range in educational achievement; only one caregiver out of 20 failed to graduate high school. Twenty percent of caregivers of high risk children (n=4) and 36.4% of caregivers of ADHD children (n=4) met that criteria.

Figure 9.6 shows differences in annual income by risk category. Caregivers of low risk children reported a mean annual income category of 3.55 (SD=1.98), between the categories $40,001-$60,000 and $60,001-$80,000. Caregivers of high risk children reported a mean income category of 2.60 (SD=1.60) while caregivers of ADHD children reported a mean of 2.09 (SD=1.38). The differences in income among the groups were statistically significant \((F(2,48)=2.924, p < 0.10)\).
During Caregiver Interview 3, a 14-item inventory was included to measure caregivers’ involvement at home, at school, and in the personal lives of their children. When the answers to these questions were summed and compared by risk group, caregivers of low risk children reported only slightly higher involvement scores (52.63, SD=4.98) than caregivers of high risk (49.64, SD=7.51) and ADHD children (50.90, SD = 8.03).

Because involvement at school was of particular interest, two questions (question 1 “How often do you volunteer in your child’s classroom?” and question 13 “How often do you volunteer in your child’s school?”) were considered separately. Nearly 30% of parents of low risk children (n=5) reported being involved in the child’s classroom “fairly often” or “always;” no caregivers of high risk children reported being that involved in the child’s classroom and only one caregiver of a child diagnosed with ADHD reported being that involved. General school involvement (question 13) followed a similar pattern. Approximately 24% of parents (n=4) of low risk children volunteered at school “fairly often” or “always” while only one caregiver of a high risk child and one caregiver of a child with ADHD reported that level of involvement. Because of
the small sample for the final caregiver interview, no further statistical analysis could be completed to compare involvement by child’s ADHD risk.

When caregivers were asked to describe a model of ADHD, two distinct notions of motherhood surfaced that could either protect or increase the risk of a child developing ADHD. “Good” mothers are thought to meet a set of standards that “bad” mothers fail to do. Based on the demographic profiles presented here, there are differences between caregivers of low risk children (“good” mothers) and caregivers of children in the other risk groups (so-called “bad mothers”). Low risk caregivers are statistically significantly more likely to be married and have significantly higher incomes than other risk groups. In these ways, low risk caregivers align themselves with a model of “good” mothering. This is not true for all variables related to “good” motherhood, however. Although low risk caregivers had the highest overall level of education, the difference among the risk groups was not statistically significant. While work status was mentioned during caregiver interviews, this characteristic does not seem to be one that distinguishes low risk and high risk, good and bad mothers. One variable—parental involvement—was more difficult to test. Low risk caregivers do seem to be more involved than caregivers of other risk categories, but further empirical testing is needed to examine this relationship. The findings presented in this section suggest that only certain characteristics attributed to a model of mother blame—that is, marital status and income—may be protective in terms of ADHD risk.

Symptom Reporting by Caregivers

Some caregivers believe there is an ideal family—or at least ideal characteristics—that will protect against the development of ADHD. Mothers of low risk children tend to match only some of the qualities assigned to “good” mothers. In the previous section, initial ADHD risk was
established by teachers. The next step in this analysis is to establish whether the characteristics central to a model of mother blame actually affect symptom ascription by the parents themselves or not.

**Marital Status:** Symptom reports were first compared by marital status. Single caregivers rated children higher for ADHD symptoms (M=27.00, SD=12.05) than married caregivers (M=24.73; SD=10.85); these differences were not statistically significant, however. For ODCD and ANXDEP risk, single caregivers again rated their children slightly higher than married caregivers; the difference in mean scores was 1.75 for ODCD symptoms and 0.25 for ANXDEP symptoms. These differences were statistically insignificant.

**Work Status:** For all three disorders, mean symptom scores were higher among children of caregivers who were not working outside the home. The differences in means—2.65 for ADHD, 1.67 for ODCD and 0.11 for ANXDEP—were not considerable enough to be statistically significant.

**Level of Education:** Figure 9.7 shows the relationship between educational attainment and reported symptoms for all disorders. Education was collapsed into three categories: those who did not finish high school, those who completed high school, and those who completed some post-secondary education. For ADHD and ODCD, symptom count drops as education level increases. These results were not statistically significant however, (F(2,48)=1.48, p >0.10). For ANXDEP, symptoms decrease between caregivers with less than a high school education and caregivers who finished high school; then the mean symptom count rises slightly. The differences among risk categories was statistically significant for ANXDEP symptoms (F(2,46)=2.71, p<0.10).
**Age:** Caregiver’s age was divided into three categories: 29 years of age or less, 30 to 29 years of age, and 40 or more years old. The group with the highest mean symptom level was the oldest group of parents, who reported an average ADHD symptom level of 30.86 (SD=5.58). Caregivers in their 30s had children with the lowest average ADHD symptoms (23.15, SD=2.18). The youngest caregivers reported an average of 26.47 (SD=2.54). While some differences exist in the mean values (a 7-point difference, for example, between older caregivers and caregivers in their 30s), these differences were not statistically significant.

**Annual Income:** Those making $40,000 or less reported statistically significant higher ADHD (t(49)=1.870, p<0.10) and ODCD (t(47)=2.088, p<0.05) than those making more than $40,000 a year. The difference in reported ANXDEP symptoms was not statistically significant.

**Involvement:** The number of cases limits the types of statistical analyses that can be performed to examine the relationship between parental involvement and symptom level. This is especially true for the involvement variables because they were measured during Caregiver Interview 3.
Caregivers were asked to rate their involvement in 14 different areas on a scale of 1 to 5, with a score of 1 representing the lowest level of involvement and 5 the highest. In order to overcome the limitation in sample size, several involvement variables were dichotomized. Reported scores of 1 and 2 (representing responses of “never” and “almost never”) were collapsed to represent no involvement while scores of 3 to 5 (representing answers “sometimes,” “most of the time,” and “always”) were summed to represent some involvement.

First, all 14 individual measures of parental involvement were summed to give a measure of total parental involvement (INVOLVETOT). Because INVOLVETOT was non-normally distributed, a Spearman rho correlation coefficient was calculated for the relationship between total parental involvement and ADHD. No significant correlation was found between the two variables.

Because of the emphasis teachers placed on the role of parental involvement at school, those variables measuring parental involvement at school were considered separately. These variables—INVOLVE1, INVOLVE2, INVOLVE9, INVOLVE10, and INVOLVE13—were summed (INVOLVE-S). INVOLVE-S was not significantly correlated with ADHD symptoms, however.

After no relationship was found between INVOLVE-S and ADHD, each of the variables that comprised INVOLVE-S was considered separately (Table 9.6). For INVOLVE1 (“How often do you volunteer in your child’s classroom?”), 22 parents reported low involvement while 14 reported high involvement. Parents who reported low involvement in their child’s classroom reported significantly higher ADHD symptoms than parents who reported high involvement (t(36)=2.305, p < 0.05). ODCD symptoms were also significantly higher among parents who
reported low involvement than high involvement ($t(35)=1.802$, $p < 0.10$). There was virtually no
difference in reported ANXDEP symptoms based on INVOLVE1.

<table>
<thead>
<tr>
<th>Table 9.6: Symptom report by level of caregiver classroom involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Symptom Report (SD)</td>
</tr>
<tr>
<td>Low involvement</td>
</tr>
<tr>
<td>ADHD</td>
</tr>
<tr>
<td>OD CD</td>
</tr>
<tr>
<td>ANXDEP</td>
</tr>
<tr>
<td>* significant at the $p &lt; 0.10$ level ** significant at the $p &lt; 0.05$ level</td>
</tr>
</tbody>
</table>

INVOLVE2 asked parents how often they attended parent-teacher organization meetings; only 9 parents reported low involvement while 27 reported high involvement. Although reported symptoms for ADHD, OD CD, and ANXDEP were higher among caregivers who reported low involvement for INVOLVE2, none of these differences was significant.

No statistical analyses could be conducted on variables INVOLVE9 (How often do you do homework with your child?) and INVOLVE10 (How often do you talk with your kids about what they’re doing in school?) because too few parents fell into the low involvement category. Only two parents reported low involvement in homework, and no parents reported low involvement in talking to their children about school.

INVOLVE13 asked parents how often they volunteered at school in general. This included volunteering outside of their child’s classroom (in the front office or library, for example) as well as sending items for special activities (e.g. cooking for Teacher Appreciation Week). Twenty-two parents reported low involvement in school volunteering while 14 parents reported high involvement. Although reported symptoms for ADHD, OD CD, and ANXDEP were higher among caregivers who reported low involvement for INVOLVE13, none of the differences was statistically significant.
The data obtained to measure parental involvement occurred during the final caregiver interview and was, therefore, limited. While this constrained the range of analyses that could be conducted, some comments may be made about the relationship between parental involvement and ADHD symptom ascription. Neither INOVLETOT, which measured parents’ involvement in multiple spheres of their children’s lives, nor INVOLVE-S, which specifically measured school involvement, was significantly related to ADHD symptom levels. Based on the limited analysis presented here, there is no evidence to suggest a relationship between parental involvement and parent-reported ADHD symptoms.

When the questions pertaining to INVOLVE-S were considered separately, only one statistically significant difference in symptom level was found. Caregivers reporting lower levels of classroom involvement reported significantly higher symptoms in their children for all disorders than caregivers who reported higher levels of involvement. Involvement in parent-teacher organization meetings and general school involvement did not appear to have any effect on symptom level. There was not enough variability in involvement on parent participation in homework and in talking with their children about school to determine whether or not these variables could impact symptom level.

A model of “good parents” and their low risk children suggests that parents who are more involved will have children with fewer ADHD symptoms. This relationship is not supported based on the research presented here. The only measure that may be empirically interesting for future testing is the role parental participation in child’s classroom may play in symptom assignment.

Mother Blame: During Caregiver Interview 3, parents were read a series of statements about ADHD’s etiology. These statements covered possible causes for the development of the
disorder, including biological malfunction, overstimulation, and changes in the overall social world. Two of the 10 statements specifically asked if they agreed or disagreed with tenets of a model of mother blame. These were statements 5 (“I believe ADHD is caused by parents not paying enough attention to their children”) and 6 (“I believe ADHD is caused by bad parenting.”). The answers to each of these questions were dichotomized into “agree” and “disagree.” Caregivers who agreed with statement 5 reported significantly lower ADHD behaviors in their children (M=23.95, SD=11.19) than caregivers who disagreed (M=30.13, SD=10.38; t(36)=1.729, p < 0.10). Although caregivers who agreed with statement 6 reported a slightly lower mean level of ADHD behaviors than those who disagreed, the differences were not statistically significant.

At the center of the notion of mother blame is the idea that caregivers do not pay enough attention to their children; there is an attention deficit on the part of the parents and not the children themselves. If parents stated that they believed ADHD was caused by parents’ inattention toward their children, they reported significantly more ADHD behaviors in their children than those who disagreed with that statement.

Risk Assessment: Teachers

Diagnosis for ADHD relies on behavior information gathered from two domains of a child’s life. These are typically school and home. Thus, the variables teachers use to assign risk is fundamentally important to understanding the diagnosis process.

Marital Status: Mean teacher-reported symptoms were first compared by caregivers’ marital status. Teachers rated children of single caregivers significantly higher for ADHD symptoms than children of married caregivers (t(46)=3.009, p < 0.005); this is shown in Table 13. For ODCD symptoms, the mean score for children of single parents was also significantly
higher than the mean symptom score for children of married parents (Table 9.7; t(45) = 3.774, p < 0.001). Children of single parents had a higher mean score for ANXDEP symptoms than children of married caregivers, but the results were not statistically significant.

Table 9.7: Comparison of teacher- and caregiver-reported symptoms by caregiver marital status

<table>
<thead>
<tr>
<th></th>
<th>MEAN ADHD SYMPTOMS</th>
<th>MEAN ODCD SYMPTOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VADTRS 1</td>
<td>VADPRS 1</td>
</tr>
<tr>
<td></td>
<td>VADTRS 1</td>
<td>VADPRS 1</td>
</tr>
<tr>
<td>Single</td>
<td>26.87 (14.02)*</td>
<td>27.00 (12.05)</td>
</tr>
<tr>
<td></td>
<td>8.42 (7.62)</td>
<td>8.67 (5.36)</td>
</tr>
<tr>
<td>n=23</td>
<td>n=23</td>
<td>n=24</td>
</tr>
<tr>
<td>Married</td>
<td>15.20 (12.85)*</td>
<td>24.73 (10.85)</td>
</tr>
<tr>
<td></td>
<td>1.91 (3.27)**</td>
<td>6.92 (5.55)**</td>
</tr>
<tr>
<td>n=25</td>
<td>n=25</td>
<td>n=25</td>
</tr>
</tbody>
</table>

* p < 0.005, ** p < 0.001

There were no significant differences in caregivers’ reports of ADHD or ODCD symptoms based on their own marital status.

**Work Status:** There were no significant differences in differences in the disorder scores by caregiver work status. Teachers assigned slightly higher mean symptom reports among working parents for ADHD and ANXDEP than non-working parents and slightly lower scores among working parents for ODCD. These results are similar to those found for caregiver-reported scores for all disorders.

**Education:** Educational attainment was dichotomized between caregivers who had a high school education or less and those who had completed some type of post-secondary education. Higher mean scores for all three disorders were reported by teachers for caregivers who had a high school diploma or less. Only the difference in ODCD scores was significant, however (t(47) = 1.891, p < 0.10). This trend in symptom level assignment is similar to the one caregivers themselves reported.

**Income:** Matching the caregiver reports of behavior, teacher-reported behaviors for ADHD and ODCD increase as caregiver income decreases. This is shown in Figure 9.8. Among
teachers, ADHD symptom reports for children of parents making less than $40,000 a year were nearly 60% more than children of parents making more than that amount; these results are statistically significant ($t(46)=2.254, p < 0.05$). ODCD symptoms were approximately 4 times higher among families making less than $40,000. Again, the difference in means between these two income groups was statistically significant ($t(45)=3.331, p < 0.005$). There was no significant difference in mean ANXDEP for the two groups.

![Figure 9.8: Teacher-reported symptoms by caregiver income for all three disorders](image)

**Figure 9.8: Teacher-reported symptoms by caregiver income for all three disorders**

- **$40,000 or less**
- **More than $40,000**

**Age of Caregiver:** Among parents, the oldest caregivers reported the highest mean symptoms in their children. Among teachers, however, the youngest parents (those 29 years old or less) had the highest mean ADHD symptoms ($25.47, SD = 3.72$) followed by the oldest parents (40 years or older; $23.71, SD=6.71$). Like the parent group, children of parents in their 30s had the lowest mean ADHD symptom reports ($17.31, SD=2.60$). There were no statistically significant differences in parent-reported symptoms by age group. Among teachers, however, there was a significant difference in symptom reports between the youngest parents and parents in their 30s ($t(39)=1.840, p<0.10$).
Involvement and Home Life: Attached to the final VADTRS assessment was a form designed to test some of the principles of a model of mother blame from a teacher’s perspective. Teachers were asked to evaluate the quality of their students’ home lives across four dimensions: the child’s home life in terms of structure, routine, discipline, and stability. Then they were asked to rate how supportive and involved the child’s parent or guardian was at school.

Teachers’ evaluations of the level of structure, routine, discipline, and stability were summed as a measure of the perceived quality of a child’s life (QUALITY). QUALITY was significantly correlated with ADHD ($r = -0.707, p < 0.001$), ODCD ($r = -0.500, p < 0.005$), and ANXDEP ($r = -0.458, p < 0.01$). As the perceived quality of a child’s home life increased, symptom reports for all three disorders decreased. In Figure 9.9, the four variables that comprise the QUALITY variable are shown individually and are compared by caregiver level of involvement.

![Figure 9.9: Teacher-reported symptoms by perceptions of child’s home life for four variables](image)
In addition to the four variables shown in Figure 9.9, teachers were asked to rate caregivers on their level of support and involvement at school. Very few caregivers in the study were rated poorly in terms of their perceived level of support and involvement at school. Only three caregivers, for example, were said to “never” or “almost never” help their children with homework. Because of the small number of cases in each category, extensive statistical analysis was not possible.

This analysis suggests that teachers assign more symptoms of ADHD and other disorders to children whose caregivers are perceived to fail to provide a home life that is believed to be protective against the disorder (QUALITY).

**Summary:** Differences in teacher-reported symptoms were evaluated using several variables: marital status, work status, caregiver education level, caregiver income level, perceived involvement at school, and perceived home life. The analyses presented above suggest that many of the variables central to a model of mother blame are significant when assigning symptoms to children. Children of single caregivers are more likely to have higher levels of ADHD and ODCD symptoms. Teachers reported significantly higher ADHD symptoms among the youngest parents as well. Children whose parents had higher levels of education, income, and school involvement had fewer symptoms of all three disorders. This was also true for four areas of home life—discipline, routine, structure, and stability. As teachers perceived decreases in these desirable traits, their symptom reports increased.

**Trends over Time**

The analyses presented above offer a simple snapshot of the relationships between ADHD and the variables of interest in this study. Causal mechanisms that influence risk cannot be deduced from these cross-sectional glimpses, however. For example, it cannot be said
whether elevated caregiver stress causes higher reporting of ADHD symptoms in their children or higher ADHD symptoms in children causes elevated caregiver stress. A longitudinal study with repeated measures is needed to test for change over time. Fortunately, this study repeated several questions over the course of the interview period, and the analyses based on them are discussed in greater detail below.

Demographics

A statistically significant correlation was found between the age of the child’s caregiver and the change in reported symptoms over time (r = -0.325, p < 0.05). As the age of the child’s caregiver increased, the change in reported symptoms decreased. The mean reported symptom change for parents 29 years or younger was 3.92 (SD =7.89) while parents in their 30s reported a mean change of 0.52 (SD= 7.69) while caregivers in their 40s or beyond reported a negative mean change (that is, they reported fewer symptoms in the second interview than the first on average) of -0.83 (SD=6.68).

Next, the change in ADHD symptoms between Caregiver Interviews 1 and 2 was compared by ethnicity. The mean change in symptoms reported by Black caregivers was 3.67 (SD = 8.64); this means that, on average, Black caregivers reported higher symptoms at the time of the second interview than they did the first. The change in symptom report between interviews 1 and 2 by White caregivers was almost non-existent; the mean change was 0.11 (SD = 6.89). The symptom reports of White caregivers remained relatively unchanged over a calendar year (Figure 9.10) while reports by Black caregivers increased to a mean of approximately 29 by interview 2 and remained higher for the final interview. A similarly large difference between Black and White caregivers was found for the change in total reported symptoms (ADHD, ODCD, and ANXDEP) between interviews 1 and 2 (Black caregivers =
4.13, SD = 13.56; White caregivers = 0.71, SD = 9.28). While the difference between Black and White caregiver reports over time is substantial for both ADHD and all symptoms combined, neither difference is statistically significant.

Differences existed in the change in reported ADHD and total risk symptoms between Caregiver Interviews 1 and 2 by education level. For ADHD, those who reported having a high school education or less reported a mean symptom change of 3.07 (SD = 9.16) while those who had more than a high school education reported a change of 0.44 (SD = 6.68). A comparable difference in means between these two groups also existed for total symptom risk. As was the case for ethnicity, mean differences based on educational attainment were large but not statistically significant.

The mean difference in symptom report for ADHD and all disorders between interviews 1 and 2 were similar regardless of caregivers’ marital or work status.
Financial Stress

Several variables related to financial stress were compared with changes in ADHD and total symptom reports next. Those receiving some type of financial assistance reported an average change in ADHD symptoms of 2.33 (SD=7.88) while there was almost no change among those not receiving assistance (0.11, SD=7.37). The difference between these groups was not statistically significant, however.

The mean change in ADHD symptom reports was higher among those earning $40,000 or more annually (2.19, SD=4.51) than among those earning less (0.57, SD=9.91). A similar relationship existed for total symptoms, but neither set of relationships was statistically significant.

By School

Figure 9.11 shows the change in mean ADHD and total risk symptoms levels between Caregiver Interviews 1 and 2 by school. Caregivers of students at J.W. Faulk reported the highest mean change in symptom reports (higher reports during the second interview) while caregivers of students at Prairie reported lower symptoms during the second interview, which resulted in negative changes in symptom levels. The differences between and among the groups that appear in Figure 9.11 are interesting but not statistically significant.
Caregiver Strain

At the beginning of this research, it was hypothesized that caregiver strain may negatively impact the ascription of ADHD symptoms in young children. This strain can take on many forms, but one type is stress at work. A significant correlation was found between the change in ADHD symptom reports from interviews 1 and 2 and the Effort-Reward Imbalance ratio (ERI, r=0.350, p <0.10). The ERI measures the perceived demands placed on an individual and divides them by the perceived rewards the person experiences at work. Higher ERI values signify greater strain at work. This relationship was also demonstrated for total disorder risk (r=0.363, p < 0.10).

Mean changes in reported ADHD symptoms were not correlated with initial perceived stress, the change in perceived caregiver stress between interviews 1 and 2, or the Superwoman Scale.
Summary

The above paragraphs have described some changes in mean reported symptoms of ADHD and for all disorders combined. The age of a child’s parent was significantly associated with symptom reports. As parents’ reported age increased, symptom reports between the first and second caregiver interviews decreased. Mean reported changes to ADHD and total symptom levels were significantly correlated with ERI as well. As ERI increased (more stress at work), mean differences in symptom reports increased.

Other variables that were analyzed, especially caregiver ethnicity and child’s school of attendance, displayed some interesting variability between and among groups, but these differences were not statistically significant.

Regression Analysis

Regression analysis was also done to test the aforementioned hypotheses. The first analysis examines the caregiver strain hypothesis. Table 9.8 shows the relationship between parent-reported ADHD symptoms (ADHD-P) and four independent variables, ethnicity, parent’s age, parent reported health status, and parent perceived stress. Parent’s age was coded into a pair of dummy variables because a curvilinear relationship was established previously between ADHD symptoms and parent age.
Table 9.8: Bivariate correlation matrix of the dependent variable ADHD-P and the independent variables

<table>
<thead>
<tr>
<th></th>
<th>ADHD-P</th>
<th>ETHNICITY</th>
<th>AGE DUM 1</th>
<th>AGE DUM 2</th>
<th>HEALTH</th>
<th>PSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD-P</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>0.024</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.207*</td>
<td>-0.106</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>-0.177</td>
<td>-0.148</td>
<td>-0.411****</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEALTH</td>
<td>0.373***</td>
<td>-0.071</td>
<td>0.252**</td>
<td>-0.119</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>PSS</td>
<td>0.429****</td>
<td>-0.273**</td>
<td>0.117</td>
<td>0.135</td>
<td>0.647****</td>
<td>1.00</td>
</tr>
</tbody>
</table>

ADHD-P: Parent-reported ADHD symptoms
ETHNICITY: Parent’s reported ethnicity (0=Black, 1=White)
AGE DUM 1: Parent’s age, dichotomized (0 = 30-39 years old, 1 = all other ages)
AGE DUM 2: Parent’s age, dichotomized (0 = 40+ years old, 1 = all other ages)
HEALTH: Parent-reported health score
PSS: Parent-reported perceived stress
* p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.005

This regression analysis was designed to test the relationship between caregiver stress and perceived health and to illuminate their impact on the assignment of ADHD risk in their children. It is possible that parents assign more ADHD symptoms to their children because they are more stressed (the caregiver strain hypothesis). This stress may be caused by a deterioration in the caregiver’s health, however. The alternative is that caregivers are reporting more stress in their lives because their children have more ADHD symptoms. It is possible that the stress associated with having an ADHD child causes additional health problems.

A model summary for this analysis appears in Table 9.9. First, parent’s ethnicity and age are added in Model 1. Model 1 demonstrates how the model would appear if ethnicity and age were used as the only predictors for the dependent variable of children’s ADHD symptoms. In Model 2, parent’s reported health status (HEALTH) is added as an independent variable while controlling for ethnicity and age. In Model 3, parents’ perceived stress is added as an independent variable while controlling for ethnicity, age, and health status.
Table 9.9: Regression model summary with the addition of independent variables for the dependent variable, ADHD-P

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent Variable Added</th>
<th>R</th>
<th>R square</th>
<th>R Square change</th>
<th>F change</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ETHNICITY, AGE DUM1, AGE DUM2</td>
<td>0.231</td>
<td>0.053</td>
<td>0.829</td>
<td>0.485</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>HEALTH</td>
<td>0.404</td>
<td>0.163</td>
<td>0.110</td>
<td>5.644</td>
<td>0.022</td>
</tr>
<tr>
<td>3</td>
<td>PSS</td>
<td>0.512</td>
<td>0.262</td>
<td>0.099</td>
<td>5.613</td>
<td>0.023</td>
</tr>
</tbody>
</table>

Model 1 shows that parents’ ethnicity and age account for only 5.3% of the variance associated with their reports of ADHD behaviors in their children. When parents’ health status was added to the model, it explained an additional 11.0% of variance in ADHD symptom reports; the change in variance explained between Models 1 and 2 was statistically significant (p < 0.05). Adding parents’ perceived stress into the model further explained a statistically significant amount of the variance of ADHD symptom reports (9.9%, p < 0.05).

Table 9.10 lists the standardized coefficients for the regression model as well as t values and significance. The results of this analysis suggest that caregiver health status and their reported levels of perceived stress are correlated but meaningful in different ways in the ascription of risk of ADHD in young children.
Table 9.10: Development of the regression model for ADHD symptom report with the addition of the independent variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized Coefficients (Beta)</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
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<td>0.000</td>
<td></td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>0.26</td>
<td>0.175</td>
<td>0.862</td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.167</td>
<td>1.1017</td>
<td>0.314</td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>-1.104</td>
<td>-0.634</td>
<td>0.529</td>
</tr>
<tr>
<td>Constant</td>
<td>1.471</td>
<td>0.149</td>
<td></td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>0.044</td>
<td>0.303</td>
<td>0.763</td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.086</td>
<td>0.541</td>
<td>0.591</td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>-0.094</td>
<td>-0.601</td>
<td>0.551</td>
</tr>
<tr>
<td>HEALTH</td>
<td>0.343</td>
<td>2.376</td>
<td>0.022</td>
</tr>
<tr>
<td>Constant</td>
<td>0.754</td>
<td>0.455</td>
<td></td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>0.132</td>
<td>0.933</td>
<td>0.356</td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.083</td>
<td>0.547</td>
<td>0.587</td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>-0.177</td>
<td>-1.158</td>
<td>0.253</td>
</tr>
<tr>
<td>HEALTH</td>
<td>0.052</td>
<td>0.283</td>
<td>0.779</td>
</tr>
<tr>
<td>PSS</td>
<td>0.445</td>
<td>2.369</td>
<td>0.023</td>
</tr>
</tbody>
</table>

What the caregiver strain hypothesis should be testing, however, is not the cross-sectional association between variables of stress and ADHD symptoms in children. What is more important is whether or not variables of stress come into play when symptoms are assigned to children. Table 9.11 shows the bivariate correlation matrix for the same independent variables but uses ADHD-CHANGE, the difference between ADHD symptoms reported at interview 2 and interview 1, as its dependent variable. Unsurprisingly, HEALTH and PSS are correlated as they were in Table 9.8. Both the HEALTH variable and caregiver ethnicity are significantly associated with the ADHD-CHANGE variable.
<table>
<thead>
<tr>
<th></th>
<th>ADHD-CHANGE</th>
<th>ETHNICITY</th>
<th>AGE DUM 1</th>
<th>AGE DUM 2</th>
<th>HEALTH</th>
<th>PSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD-CHANGE</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>-0.227*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.127</td>
<td></td>
<td>-0.074</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>0.149</td>
<td>-0.119</td>
<td>-0.418***</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEALTH</td>
<td>0.250*</td>
<td>-0.130</td>
<td>0.180</td>
<td>-0.057</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>PSS</td>
<td>-0.034</td>
<td>-0.345**</td>
<td>0.115</td>
<td>0.090</td>
<td>0.658***</td>
<td>1.00</td>
</tr>
</tbody>
</table>

### Table 9.11: Bivariate correlation matrix of the dependent variable ADHD-CHANGE and the independent variables

ADHD-CHANGE: Difference in parent-reported ADHD symptoms between Interviews 1 and 2
ETHNICITY: Parent’s reported ethnicity (0=Black, 1=White)
AGE DUM 1: Parent’s age, dichotomized (0 = 30-39 years old, 1 = all other ages)
AGE DUM 2: Parent’s age, dichotomized (0 = 40+ years old, 1 = all other ages)
HEALTH: Parent-reported health score
PSS: Parent-reported perceived stress
* p < 0.10, ** p < 0.05, *** p < 0.005

A model summary for this analysis appears in Table 9.12. Like the previous model, this table shows how the model changes with the addition of each independent variable. Both parent ethnicity and parent age are introduced in Model 1. The HEALTH variable is introduced in Model 2 while age and ethnicity are held constant. In Model 2, the PSS variable is introduced while HEALTH, age, and ethnicity are held constant. Ethnicity and parent age initially explain 10.0% of the variance (Table 9.12). The addition of the HEALTH variable explains 4.2% of the variance, which was not statistically significant. Finally, adding the PSS variable to the model explains an additional and statistically significant amount of the variance associated with the change in reported ADHD symptoms (14.6%). In all, these variables explain nearly 30% of the variance associated with parent reports of ADHD symptoms.
Table 9.12: Regression model summary with the addition of independent variables for the dependent variable, ADHD-CHANGE

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent Variable Added</th>
<th>R</th>
<th>R square</th>
<th>R Square change</th>
<th>F change</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ETHNICITY, AGE DUM1, AGE DUM2</td>
<td>0.316</td>
<td>0.100</td>
<td></td>
<td>1.327</td>
<td>0.281</td>
</tr>
<tr>
<td>2</td>
<td>HEALTH</td>
<td>0.377</td>
<td>0.142</td>
<td>0.042</td>
<td>1.742</td>
<td>0.196</td>
</tr>
<tr>
<td>3</td>
<td>PSS</td>
<td>0.537</td>
<td>0.288</td>
<td>0.146</td>
<td>6.954</td>
<td>0.013</td>
</tr>
</tbody>
</table>

Table 9.13 lists the standardized coefficients for this regression model as well as t values and significance. None of the variables is statistically significant in the second model. In the third model, ethnicity, health, and perceived stress all have statistically significant effects on ADHD-CHANGE. Furthermore, the second age dummy variable (AGE DUM2) approaches statistical significance.

Table 9.13: Development of the regression model for the change in ADHD symptom report with the addition of the independent variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized Coefficients (Beta)</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.251</td>
<td>-1.251</td>
<td>0.219</td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>-0.187</td>
<td>-1.165</td>
<td>0.252</td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.201</td>
<td>1.145</td>
<td>0.260</td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>0.211</td>
<td>1.196</td>
<td>0.024</td>
</tr>
</tbody>
</table>

In addition to the caregiver strain model, it was important to test the importance of several factors related to the model of mother blame. Below in Table 9.14 is a correlation matrix for four independent variables—ETHNICITY, parent’s ethnicity; parent’s age entered as dummy
variables AGE DUM1 AND AGE DUM2; INCOME, dichotomized into less than $40,000 annually or $40,000 or more annually; MARITAL, caregiver’s marital status; and EDU, caregiver’s education level dichotomized into high school or less and more than high school—and the dependent variable, ADHD-T. ADHD-T represents teacher-reported ADHD symptoms during the initial risk screening (VADTRS 1).

These variables were then inserted to a linear regression analysis. Table 9.15 presents the model summary for this analysis. This table shows how the model changes with the addition of each independent variable. Model 1 includes the caregiver’s age and ethnicity as the sole predictors of ADHD-T. Model 2 includes caregiver’s income (INCOME) as a predictor while holding parent age and ethnicity constant. Model 2 introduces the variable INCOME, which represents parents’ dichotomized annual income, while holding parent’s age and ethnicity constant. Model 3 introduces the variable MARITAL, which signifies the caregiver’s marital
status, as a predictor of ADHD-T; in this model, parent’s age, ethnicity, and income are held constant. In the final model, Model 4, parent’s education (EDU) is added while the previous variables, including parent’s marital status, are held constant.

<table>
<thead>
<tr>
<th>Table 9.15: Regression model summary with the addition of independent variables for the dependent variable, ADHD-T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

Based on Table 9.15, parent’s age and ethnicity hold very little predictive power over the assignment of ADHD symptoms among children by their teachers. The variable INCOME, introduced in Model 2, explains a significantly larger amount of variance (6.0% more) than the previous model. Caregivers’ marital status also explains a significantly larger amount of variance (6.7%) than previous models when introduced in Model 3. Adding parent’s education level, however, does not significantly affect the level of variance explained in ADHD-T.

Table 9.16 lists the unstandardized and standardized coefficients for the regression model as well as t values and significance. This analysis tested the power of several variables related to a model of mother blame. It was found that, overall, both caregivers’ income and marital status were most significant in the assignment of symptoms by teachers.
Table 9.16: Development of the regression model for the teacher-reported ADHD symptoms with the addition of the independent variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized Coefficients (Beta)</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>-0.089</td>
<td>-0.602</td>
<td>0.550</td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.262</td>
<td>1.583</td>
<td>0.121</td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>0.027</td>
<td>0.164</td>
<td>0.871</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>0.035</td>
<td>0.216</td>
<td>0.830</td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.222</td>
<td>1.358</td>
<td>0.182</td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>0.059</td>
<td>0.364</td>
<td>0.718</td>
</tr>
<tr>
<td>INCOME</td>
<td>-0.282</td>
<td>-1.723</td>
<td>0.092</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>0.072</td>
<td>0.452</td>
<td>0.654</td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.205</td>
<td>1.289</td>
<td>0.205</td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>0.052</td>
<td>0.332</td>
<td>0.742</td>
</tr>
<tr>
<td>INCOME</td>
<td>-0.089</td>
<td>-0.469</td>
<td>0.642</td>
</tr>
<tr>
<td>MARITAL</td>
<td>-0.338</td>
<td>-1.889</td>
<td>0.006</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>0.090</td>
<td>0.563</td>
<td>0.577</td>
</tr>
<tr>
<td>AGE DUM1</td>
<td>0.192</td>
<td>1.200</td>
<td>0.237</td>
</tr>
<tr>
<td>AGE DUM2</td>
<td>0.089</td>
<td>0.548</td>
<td>0.587</td>
</tr>
<tr>
<td>INCOME</td>
<td>-0.022</td>
<td>-0.109</td>
<td>0.913</td>
</tr>
<tr>
<td>MARITAL</td>
<td>-0.368</td>
<td>-2.022</td>
<td>0.050</td>
</tr>
<tr>
<td>EDU</td>
<td>-0.155</td>
<td>-0.961</td>
<td>0.342</td>
</tr>
</tbody>
</table>

Conclusions

This chapter has focused on identifying who is at risk for ADHD based on two distinct models. The first model is a literature-based model of caregiver strain. It was hypothesized that as caregiver strain in three areas—perceived stress, financial stress, and status competition—increased, disorder symptom level would increase. Statistical analysis confirmed the relationship between ADHD symptom level and the first two aspects of caregiver stress: perceived stress and financial stress existed. This held true for ADHD and, in some instances, ODCD and ANXDEP as well. While no direction of causality can be stated, the fact that the variables are related suggests that further empirical testing should be conducted. There was little evidence to support
the existence of a relationship between ADHD symptom level and status competition. It can be concluded from the first half of this chapter that at least some of the variables related to caregiver strain are important to consider during the process of ADHD symptom ascription and diagnosis.

The second portion of this chapter tested a model of etiology that developed during the interview process. As mentioned previously, a model of mother blame posits that mothers are accountable for their children’s problematic behaviors. “Good” mothers have very distinct characteristics, which are defined by their marital and work statuses, education level, income, and level of parental involvement. In this research, mothers of low risk children—presumably good mothers—differed from mothers of other higher risk groups. Mothers of low risk children were mostly married, working, more educated, wealthier, and more involved. Thus, they matched the model of good motherhood and were rewarded with “good” (i.e., low risk) children.

The next step was to take each of the variables individually and compare them to disorder symptom levels to see if features of the mother blame model were upheld by the mothers themselves. Married caregivers reported lower ADHD symptoms in their children than did single caregivers, but the differences were not statistically significant. As education and income increased, symptom levels tended to decrease. No significant differences were found based on work status or parental involvement, however. The final analysis compared support for a notion of mother blame with symptom level. Those who explicitly stated that ADHD was caused by parents not paying enough attention to their children reported significantly lower ADHD symptoms than those who disagreed.

While the analyses seemed to hint at a connection between mother blame and ADHD symptom assignment, the testing of these associations was limited statistically. Only a few of the variables related to a model of mother blame were significantly related to symptom
assignment. Further empirical research is needed to determine whether or not these variables are truly interesting and important to the diagnosis decision making process. Parents’ assessment of symptoms is only part of attaining a diagnosis for ADHD. Teachers’ assessments of symptoms are equally if not more important to diagnosis. Although parents reported similar levels of ADHD behaviors in their children whether they were married or not, teachers reported significantly higher symptom levels among children of single caregivers. Teachers reported similar levels in symptoms regardless of caregiver work status just as caregivers themselves did. Parents’ level of education only affected teacher reports of ODCD symptoms. ADHD and ODCD teacher-reported symptoms were significantly higher among families making less than $40,000 a year. Finally, the analyses above suggest that teachers tend to assign more symptoms to children whose caregivers do not provide what is considered to be a good home life—a home life that has routine and discipline and is structured and stable. Again, most of the variables related to a model of mother blame seem to be validated. While work status was unimportant in both caregiver and teacher models, marital status was more important to teacher models than to caregivers themselves.

The model of mother blame is an integral part of the lay discourse on ADHD. Its significance goes beyond the explanatory, however. Failing to meet certain ideals of motherhood means that caregivers themselves will report higher symptoms in their children. Teachers also recognize when parents are not meeting these expectations and likewise report higher symptoms. This research demonstrates the importance of home life to the development of ADHD.
Chapter 10: Stimulant Medications and Zombie Children

Chapter 3 of this dissertation describes the meteoric rise and substantial spread of ADHD in recent years. As state-level prevalence rates continue to rise beyond 10% and even 15% in some areas (CDC 2011), ADHD is often at the center of lay and popular discourse. Central to discussions of ADHD are the stimulant medications most commonly used to treat the disorder (Danforth and Navarro 2001, Diller 1996, Leslie et al. 2007). The use of prescription medications to treat ADHD is so widespread that pharmacies across the nation recently reported major shortages in the drugs’ availability (Ellison 2012, McElfresh 2012).

One topic that has managed to match the currency of ADHD and its treatment with prescription medications in popular culture is zombies. The CDC, the same government-sponsored health organization that describes the spread of ADHD, now also offers advice on how to prepare for a zombie apocalypse (CDC 2012). The classic book *Pride and Prejudice* recently got a makeover that included a heavy dose of zombies (Austen and Grahame-Smith 2009). Even philanthropy has gotten an upgrade. Zombie walks, in which large groups of people dress and act like zombies as they walk together along specified routes, often raise proceeds for various causes (e.g., Karlis 2009).

In this research, these seemingly dissimilar subjects overlapped, and in slightly more than 20% (n= 11) of the first caregiver interviews, children with ADHD were described using zombie imagery. This chapter is dedicated to exploring the connection between ADHD and zombies. The first section of this paper describes a brief history of zombies and how the term is defined and used here. Next, comparisons are drawn between unmedicated ADHD children and zombies.
and medicated children and zombies. Then, characteristics of the families who mentioned zombies in their interviews are briefly explored. Finally, a discussion of zombie references in the teacher interviews and in other published ADHD literature is included.

**Defining Zombies**

The zombie invasion into American popular culture began in the late 1920s with the release of the book *The Magic Island* by William Seabrook (1989), who is credited with introducing the word *zombi* into the English language. Shortly after, films like *White Zombie* (1932) and *I Walked With a Zombie* (1943) appeared on the big screen. In early works like these, zombies were based on European accounts from Haiti that described people who had died but were then reanimated. Using their terribly powerful magic, sorcerers robbed people of true life, true death, and free will. Zombies were automatons relegated, in many cases, to spending the rest of their very undead days working as the ideal slaves. Although little evidence could be gathered to support the idea of the Haitian zombie (but see Davis’ (1983) and (1997) works), the idea of it—and the gender and racial subjugation that attached themselves to the concept (Inglis 2010)—were powerful and pervasive for several decades.

But it was George Romero, nicknamed the “godfather of the dead” (Savage 2010), who pioneered the modern version of the zombie. Romero’s series of zombie films beginning with *Night of the Living Dead* (1968) augmented the reanimated mindless creatures of previous decades. The exact nature of the augmentation from Haitian to Hollywood zombie is debated among those interested in zombie studies (Behuniak 2011, Paffenroth 2006, Sheridan 2009).

This discussion follows the characteristics of zombies outlined in Behuniak’s (2011) comparison of Alzheimer’s disorder and zombies. Although her list contains seven characteristics, only four are discussed because they are most applicable to ADHD. These characteristic descriptors of
zombies include their appearance, the loss of self, disruption to interpersonal relationships, and fear and aversion among the unaffected (Figure 10.1).

Appearance: Romero’s zombies, as Behuniak (2011:79) notes, seem to be “rather pathetic monsters” at first glance. The mindless monsters have gray and pasty skin, are dirty and disheveled, and typically have injuries from previous altercations. Zombies are constantly moaning and groaning as they slowly but determinedly hunt their prey.

![The Hollywood Zombie](http://couchzombies.blogspot.com/2010/09/full-zombie-bodies.html)

Figure 10.1: Characteristics of the Hollywood zombie following Behuniak (2011)

Loss of self: What is perhaps most frightening about all monsters is that they are said to “upset categorical boundaries and binary distinctions” (Cussans 2004:204). For zombies, this disruption occurs between life and death itself. They are commonly seen as being us but not us. Once infected, the people we know are no longer there. Likes and dislikes, personality traits, and personal history are stripped away leaving zombies as shells of their former selves.
**Relationships affected:** This transformation to zombie is doubly painful because zombies not only lose the ability to recognize who they are but they also lose the power to recognize others. No one is spared this forgetfulness—family, friends, and strangers are transformed into enemies.

**Fear and aversion:** It has been noted that zombies do not seem to feed to satiate any sort of physical need for food. Instead—and worse still—zombies participate in what Webb and Byrnand (2008) call “mindless consumption of the unnecessary by the unneedy.” Zombies do not desire to eat; they desire to infect others. Pairing zombies’ inhuman greed with their grotesque appearances and lack of social relationships make zombies extraordinarily repulsive. More so, zombies—perched precariously on the boundary between human and monster—instill a powerful fear among those wishing to cling to their own humanity.

**Comparing zombies and ADHD children**

This section attempts to match the description of the Hollywood zombie to descriptions of the ADHD child. The inattentive subtype of ADHD was specifically chosen for comparison because it was believed this subtype would provide a closer reflection of the Hollywood zombie.

**Unmedicated**

**Appearance:** Parents described ADHD children who were inattentive as unfocused, disorganized, and disinterested in what they were doing; this was often true even when the activities were considered to be interesting ones. Inattentive ADHD children were believed to daydream often. As a result, they typically wore vacant expressions as they moved through their daily lives. One teacher described children who suffered from inattention as being “in a fog” and “just kind of absent from the room, you know, mentally.” In this way, ADHD children do loosely resemble the zombies to which they are compared.
Loss of self: A diagnosis of ADHD-Inattention did not seem to cause children to lose their identities. Rather, diagnosed children missed out on potential selves. The disorder’s symptoms meant that performing well at school—doing the work that children are supposed to do—was difficult. They could not concentrate long enough to complete their work. In some ways, inattentive children became invisible, especially in a classroom. One mother of two and high school teacher put it this way, “Sometimes the inattention, you’re not even aware that it’s going on because they can be sitting there with their pencil in their hand and their stuff and staring at the paper and even writing something every once in a while but have really paid no attention, and you don’t know that they’re not getting it.” Unmedicated ADHD children appear like the children around them but unlike them as well. Again, the comparison between zombies and the unmedicated is loose but plausible.

Relationships affected: Zombies disrupt the entire social world by their existence. ADHD children too upset the balance in their social world, and relationships with peers and their parents are affected. In the last chapter, one mother described how her son Taylor had no desire to play with a neighbor child, who she later found out had ADHD. The child appeared normal enough to others, but his interactions with others were different enough that the children on their street could not or would not play with him. The relationships between ADHD children and their parents were definitely affected by the disorder. Parents remarked how much extra energy it took to raise an ADHD child. In order for their children to be successful, parents had to spend extra time at schools and health facilities. They also faced a greater burden of care: babysitters and neighbors were reluctant to watch their ADHD children.

Fear and aversion: While all parents interviewed realized children could not “catch” ADHD from other children, there was fear in its spread. Parents remarked how common ADHD
had become in their children’s schools. This perception of rampant ADHD prevalence recently gained further support when news outlets across the nation reported a shortage of medications used to treat ADHD earlier in 2012 (Figure 10.2; Schroeder 2012). One mother, who worked closely with the school as a member of the Parent-Teacher Organization, commented that teachers had to work hard to spread around the so-called “problem children” like those with ADHD so that they would not all be concentrated in a few classrooms. The spread of ADHD and the subsequent aversion of those with the disorder were felt in the community as well. Some parents reported that their ADHD children were unwelcome at family events and neighbors’ houses.

Figure 10.2: News coverage of ADHD medication shortage earlier in 2012; Corpus Christi, TX

*Medicated*

Based on these 4 characteristics, the comparison between unmedicated ADHD children and zombies is plausible but weak. Nevertheless, in interviews with nine parents, the two
concepts are distinctly linked. When these interviews were reviewed, the associations made between ADHD and zombies had nothing to do with the untreated ADHD child. What was viewed as monstrous was the ADHD child treated with prescription medications.

**Appearance:** The ADHD child being treated for the disorder often appeared different from his or her former self. Medicated children are often described as calm but almost unnaturally so. They are quiet and lethargic, and as one mother put it, “so zoned out that he doesn’t hear me.” This seems to be a closer representation to the mindless Hollywood zombies than ADHD children who are not on medication.

**Loss of self:** The change in appearance between untreated and treated ADHD children strikes at an even deeper issue. Medicated ADHD children are believed to have lost their ability to be children. They no longer have the same interests or personality as they formerly did. In essence, they are no longer themselves, and in the sobering words of one mother, “they don’t know who they are” anymore. The fear of changing her child’s personality is one reason one mother of three decided against treatment. She said she believed the medication “would change his little personality. I couldn’t imagine him a little zombie. [He] is a fun kid…. And I could imagine that if he were medicated, he wouldn’t be that way.”

**Relationships with others:** This break with oneself also has repercussions on the child’s relationships with others. This is perhaps best expressed through an example in which Rebecca, a mother of two and a teacher at an area high school, described one of her students, Tasha:

Mother: There was a student in my classroom that was diagnosed with it that I wouldn’t have… I wouldn’t have labeled her that, but the medication sure made a world of difference. You know, she got right to it. She started paying attention. I mean, her workload tripled. And in GED [the special class she taught gearing kids toward a GED certificate], they’re kind of working at their own pace and this and that. She was struggling in math. Oh! She got on that medication, and I was like, “Chick, you need to take a break.” She’s like, “Oh, Ms. Rebecca, I’ve gotta go. I’ve gotta go. I’ve gotta get this done. I’ve gotta get my GED.” I was like…
I: Different child, huh?

M: Yes! To the point where I was like, “Well, I want you to not take your medication tomorrow because I would at least like to talk to you and joke around with you tomorrow.” I mean, she was really just… she was so fun, so sociable—I mean, funny, happy, smiley all the time. Got on the medication. Tried to joke with her. She wouldn’t even laugh. She wouldn’t even stop doing her work, she wouldn’t even—you know. “C’mon, Ms. Rebecca, be serious.” And I was like, “Tasha, come on. Don’t take your medication tomorrow.”… I was like, “Don’t take your medication tomorrow. You’ll get more work done.”

**Fear and aversion:** For many parents, nearly anything is preferable to treating an ADHD child with medication. A mother of two said:

Mother: They say Ritalin is the worst thing to give a child.

Interviewer: Why’s that?

M: Because they say it drugs them up so bad that, like, they zombies.

Another mother of one described how, if her son happened to be diagnosed with ADHD in the future, she would try medication only as a last resort. Among some parents, there is not only terror at the thought of putting a child on medication but also disgust. A mother of two who worked in a school cafeteria said, “You can’t make it to where your child is a burden on you and the only way you can deal with that child is to put him on medicine that’s gonna have that child sitting back at you and looking like this (sort of a zombie face).” A mother of three, who was mentioned above, remarked, “Let them be a kid because I prefer that than to drag him everywhere as a little zombie.”

**Zombie imagery and the mothers who use it**

It is possible that a certain type of caregiver is more likely to employ zombie imagery than others. This section explores the characteristics of this group.
Table 10.1 demonstrates that caregivers who used zombie imagery were evenly divided by marital status, work status, ethnicity, and educational attainment. These variables, therefore, could not be used to distinguish this subset of caregivers from the overall caregiver group.

<table>
<thead>
<tr>
<th>Table 10.1: Selected characteristics of caregivers who employed zombie imagery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Working</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Some differences did exist in terms of reported income, however. Nine out of 11 parents who invoked zombie imagery reported that they earned less than $40,000 annually. This finding mirrors the distribution of the students at the study schools. Nine out of 11 parents had children who were enrolled at J.W. Faulk, Prairie, or Live Oak Elementary while only two students attended Ernest Gallet, the school with the highest mean annual income.

There was also some variability in the level of ADHD risk among this subset of students based on initial teacher evaluations (VADTRS 1). Eight out of 11 parents who used zombie imagery had children who met DSM IV criteria for ADHD but who had not been officially diagnosed with the disorder. None of the parents who mentioned zombies had a child who had already been diagnosed with ADHD.

Based on these results, it appears that there is some variability in negative perceptions related to medication use. These perceptions are most common among parents whose children are at highest risk of developing ADHD. It is possible that the fear of and aversion toward
stimulant medication is what keeps parents from accepting a diagnosis of ADHD for their children. Further empirical testing is needed to explore this relationship, however.

Other zombie-ADHD connections

While most of the teachers interviewed mentioned medication as a treatment for ADHD, only one teacher made an explicit connection between zombies and ADHD. She said, “I just think that they don’t want their kids to have medicine. They don’t want it. And I think they think they’re going to be zombies. They don’t have enough information on it, I guess.” This teacher acknowledges that there is a belief among parents that medication turns children into zombies. Instead of treating this as a legitimate fear as many of the parents quoted in the previous section did, she dismisses the idea and attributes it to ignorance. None of the parents who connected the idea of ADHD to zombies did so. Although one teacher’s opinion should not be viewed as representative of all teachers, it is likely that these two groups differ on the value and risks of prescription medication.

The comparison between medicated ADHD children and zombies also appears in other ADHD literature. Anthropologists Danforth and Navarro (2001) were interested in how ADHD was socially constructed in everyday speech. They recorded one mother as saying “[the] mom still refused to put her [child] on Ritalin. She couldn't understand how making her a zombie was going to help her in math.” Another article (Charach et al. 2006) described the fear one family had in making the decision to medicate their ADHD child. The parent said, “We were scared because we heard about…filling up kids with drugs and they are zombies.” Leslie et al.’s (2007) article on personal narratives related to medication use reiterates the fears that parents faced. One parent remarked, “Oh, you’re going to put her on medication? That’s not good. All that stuff do is dope ‘em up and have ‘em acting like zombies.”
Conclusions

Approximately 20% of caregivers interviewed for this research mentioned zombies in their discussions of ADHD. During these interviews, zombies were always mentioned in conjunction with negative feelings toward the use of stimulant medications among children. These interviews demonstrate that it is the medication of ADHD children—and not children with ADHD themselves—that turns them from unwell to monstrous in the eyes of many. Their appearances have been altered, their relationships with themselves and others have been damaged, and they strike real fear into their world.

While parents have linked zombies and ADHD medications both in this project and in other published literature, this connection seems weaker among teachers. As mentioned above, only one teacher used the word *zombie* in her interview, and it was used in such a way as to suggest that parents are misinformed if they believe their children will become zombies after taking stimulant medications.

Although teachers like these may dismiss negative perceptions of stimulant medications, the fear and aversion many parents feel toward them may affect their decisions to have their children diagnosed with ADHD. One mother of two who used zombie imagery—and whose story of diagnosis decision making is discussed in further detail in Chapter 11—remarked that her younger child was “not even an issue. He could be as hyper as he could be, and he’s not getting Adderall.” Because she did not approve of the treatment for ADHD, the possibility of diagnosis was eliminated even though her child met DSM IV criteria for the disorder.
Chapter 11: Case Studies

Most ADHD research to date has focused on the thoughts and feelings of caregivers after they have finished the process of diagnosis. Any recollections of the process itself are retrospective. What is missing from this body of research is how parents come to make decisions about their children’s health and their thoughts and feelings during the process. This chapter tells the stories of five boys—Tyler, Aaron, Edward, Peter, and Brandon—and their mothers as they cross paths with ADHD. This discussion is not meant to exclude girls and their families as they make decisions regarding ADHD diagnosis. While several girls in the sample were already diagnosed with ADHD, none of the girls’ families seemed to struggle with diagnosis decision making during the study.

Tyler

Tyler is the younger of two boys. His older brother Mason was diagnosed with ADHD when he was about 7 years old—the same age Tyler was when the study began. Mason is now 12. Tyler’s mother, Anna, first noticed problems with Mason in first grade. His teacher believed he had dyslexia but was unable to test him for it because he was too young. After failing first grade, Mason was finally tested for dyslexia and found to have the condition. In second grade, Mason’s new teacher noticed his attention span was lacking. At that point, he was evaluated for ADHD and put on medication.

For Anna, Mason’s diagnosis process was difficult because there was no clear testing for the disorder and no way to know definitively if he had it. The actual label of ADHD did not
seem to bother her much; it was the fact that he would have to be put on medication that stressed her the most. She talked about how scary it was to have to make the decision to medicate her child, but she felt more at ease once Mason’s doctor explained how ADHD disrupted the brain. Anna also felt more comfortable giving him medicine once she saw the effects. The change, she said, was radical. After putting Mason on medicine, Anna remarked that his behavior “was much more controlled. We noticed a big difference. Everybody wasn’t pulling their hair out. You know, it wasn’t a constant ‘Ahhh!’ (laughs).” But, she admitted, the medicine was not a foolproof solution. She said that Mason was fine during the day while his medicine was working; at night, however, when he “came down” from his medicine, his anger and aggression increased.

At the time of the first interview, Tyler was “at the same place” Mason was just before being diagnosed. Anna believed Tyler was suffering from the same attention problems and dyslexia that Mason had. She had already contemplated getting Tyler tested for ADHD and possibly medicating him. Even though she had one son who had been through the diagnosis process, Anna was still uneasy. She was particularly worried about the lack of ADHD diagnostic tests; she knew that there was no definitive way to tell if he suffered from the condition—no surefire way to tell if she made the right decision. Plus, after having so many complications with Mason’s medicine, Anna was also afraid of how Tyler might react.

On top of struggling with her sons’ behavioral issues, Anna was watching her marriage crumble. Anna confided that her husband had been suffering from substance abuse problems for several years. She described him as “struggling,” and she believed he might have suffered from the same problems (ADHD and possibly dyslexia) that her sons did although he was never formally diagnosed. Now Anna and her husband were separated and preparing to get divorced.
She was having a very difficult time juggling the needs of her children with demands at work (she worked 40 hours a week) and her emotional distress. The separation seemed to be weighing heavily on her children as well. Anna described her boys as angry, aggressive, and negative.

By the second interview, just a few months after initially talking with Anna, the family’s home situation had changed dramatically. Tyler had been tested for ADHD. The doctor believed he had the disorder, so Tyler was put on medication. Anna was both relieved and excited to find how big a difference the medicine made in Tyler’s behavior and the boys’ interactions together. She said, “They don’t act out as much. They don’t, um… they understand. It’s weird. They’re more… before, they would argue, fight, just constantly. Constantly at each other. It’s really calmed things down.” She noted that Tyler was doing better in school and seemed to be a happier child.

Anna was practically giddy about all the positive changes she and the boys had made in their lives since the first interview. Since separating from her husband, she moved in with her parents. She said the boys missed their dad, but overall, the change had been for the better. For a while, Anna said she was having a problem with her older son’s living arrangements. Mason would stay with his dad, who would negatively influence him, and when she could finally get him to come home, Mason would be a different child. Now that she has moved, the negative influence Mason’s father had on him had decreased. Anna also credited counseling for the more positive atmosphere her home now had. Both Anna and the boys were going to counseling. For Anna, counseling helped her learn better ways to parent. She increased the amount of discipline she used at home by implementing a system of rewards and consequences she learned. She also made more of an effort to have “family time,” what she describes as “doing something together as a family besides eating at the dinner table.” They tried to do things like playing cards or
games together three to four hours a week. Anna said she felt as though she had to “go above and beyond” because her family needed it so much. She also believed counseling was wonderful for the boys, who now had someone outside of the family to talk to about their problems.

Anna’s phone was disconnected and Tyler had moved to a different school by the time of the final interview. It is impossible, then, to say whether or not the positive changes she experienced after Tyler was diagnosed and after she completely separated from her husband remained. This narrative suggests that for Anna, ADHD diagnosis and treatment brought relief and hope. It was just the thing she needed to reestablish “normalcy” at home.

Aaron

Aaron is the youngest of six children who range in age from seven to their early 20s. The oldest five children are from a previous marriage that Aaron’s mother Julie considered to be horrible. Like Anna’s husband, Julie’s first husband had substance abuse problems. Julie said her first husband was an alcoholic who was very unreliable. She said he would not come home for days at a time, and she never knew where he was. Finally, after staying with her husband for nearly two decades, Julie finally left him. She did not want her children to consider their father’s behavior as “normal.” After that, she met and married her second husband, Aaron’s father. Aaron’s father Jay was a truck driver who was gone most of the most of the time. Jay typically had only one weekend a month off, and he was typically on call the few days he spent at home. Julie basically described herself as a single mother but seemed to enjoy the setup. She was close with a neighbor in a similar situation, and the two of them stuck together when their husbands were on the road. When Jay was at home, Julie and the children who lived at home tried to fit in as much quality time as they could. Although Jay was not there for them very much physically,
Julie insisted that he was there emotionally—which was more than she could say about her first husband.

Aaron was rated as low risk on the initial VADTRS I screening. During the first caregiver interview, he seemed to match this description. He sat quietly and watched TV just feet away as the interview was conducted. Julie described him as very easy going and laidback. She did not seem to have any trouble with him and had never heard anything negative from his previous teachers. Most of the first interview was, in fact, not spent talking about Aaron but about his sister Megan. Megan was diagnosed with ADHD when she was about 4 years old. She is now 14. Julie said the difference between Megan and her two older sons was striking. She remarked. “I was going out of my mind… I mean at 2 and 3 [years old], I was like.. ‘Oh my God. Something’s wrong.’ Cuz I had the two boys who were… just like Aaron, quiet and mellow, and then I had her…”

Julie has worked for a local pediatrician for many years. When Megan’s trouble began, Julie took her to see the pediatrician she worked for. Megan was diagnosed with ADHD and still takes medication for it. Julie worked closely with Megan’s teachers to make sure her daughter’s medication dosage was right and that Megan was not using her disorder as an excuse not to do her work. Once the medication was adjusted, Julie said the difference in Megan was drastic. Her behavior and temper were better controlled, which improved her relationships with her brothers and sisters. Megan also learned tools to improve her self-control so that she would not have to rely strictly on the medicine to regulate her behaviors. For Julie, the years since Megan’s diagnosis had brought about a great and positive change in her daughter.

Problems with Aaron, however, completely blindsided her. Julie had always seen Aaron as an easygoing child that gave her few problems. When Aaron started second grade, Julie
remarked that he seemed to be having a hard time adjusting to his new teacher. Julie described the teacher as being very disorganized in the classroom. This is practically the complete opposite of Julie herself, who admitted she almost obsessively cleaned up around her house. Between the second and third interviews, Julie even made the decision to get rid of a recent addition to their household, a boxer puppy, because of the mess it made.

Julie also complained that the teacher never really seemed to be on top of things. She noticed that Aaron would come home from school very disorganized. Sometimes he left his work at school. Other times he failed to do his homework because it was not written in his assignment book. He was doing poorly on tests, and he was very behind in class. When Aaron’s teacher called home from school, Julie was defensive about Aaron’s behavior. Julie believed it was more of a problem with the teacher than it was with Aaron, who had never been in trouble before. At one point in relaying this story, Julie said, “My child is disorganized? You [the teacher] are the one who needs to get organized.” Still, the teacher insisted that Aaron was displaying behaviors associated with ADHD in the classroom. The teacher also said that Aaron really needed to “grow up.” The teacher was also defensive about the situation, and Julie said the two of them “sort of got into it.”

Based on her experiences with Megan, Julie did not believe Aaron had ADHD. She said that the Aaron his teacher described was not the Aaron she knew, and she did not want to put him on medication. Julie stressed that his previous teacher had never had any problems with him, and she could not understand why there was such a big change in his behavior this year. But, at the insistence of his teacher, they struck a compromise: Julie would take him to the doctor for ADHD testing if the teacher gave her a couple of weeks to “get Aaron’s act together.”
Julie, who was already working part time, immediately cut back her weekly work hours so that she could spend more time at home with her children. Julie tackled Aaron’s disorganization by going through and reorganizing his entire backpack with his help. Then she tried to get him back on pace with the rest of his class. Julie made flash cards and drilled him on sight words, and she went over his spelling words all the time. She punished him if he forgot to do his work by taking things away from him. Education had always been important for Julie and her family, but she now redoubled her efforts so that Aaron would feel the same way.

After a few short weeks, Julie’s interventions had completely changed Aaron around. Aaron was doing well on all of his assignments and was now up to grade level in his subjects, including reading. In fact, Julie beamed, the teacher now described Aaron as a model student and had no further problems with him.

To Julie, Aaron did not have ADHD. She had experienced what ADHD was like with her daughter Megan, and she believed Aaron’s situation to be completely different. As a mother, Julie also believed she knew Aaron better than anyone; the disruptive, immature child who was behind grade level that Aaron’s teacher saw was not how Julie saw Aaron. Julie refused to put Aaron on medicine without a fight, and the few weeks of intense intervention paid off. Avoiding a diagnosis meant that Julie had to make some significant sacrifices. She had to work less. She had to work with Aaron more. But for Julie, the sacrifices were worth it: Aaron did not have ADHD.
Edward

Edward is the younger of two children. His sister is considerably older than he is; she started college between the first and second parent interviews. Edward’s mother, Sheila, is also enrolled in college and trying to finish her dietetics degree.

Edward’s sister never had any problems with ADHD or ADHD-related behaviors as far as Sheila mentioned, but at the time of the first interview, Edward was beginning to have problems in school. Sheila described her son as the class clown who loved to act up. Because Edward was a follower, he would often get into trouble by mimicking the behaviors of his classmates. His teacher had begun to complain about Edward’s fidgeting, lack of focus, and poor listening skills. Still, according to the initial VADTRS screening, Edward was rated as being at low risk of developing ADHD. And Sheila herself was unsure whether or not she believed Edward’s behaviors qualified as ADHD. She said, “He was the person who would hurry up and rush through it [his classwork] so he could cut up.” Sheila’s perception of Edward’s behavior is recorded in greater detail below:

Mother: The kids are really bad over there, and my son is more of a follower rather than a leader. So once he sees someone cutting up and the teacher might not tell this particular child something, then that’s when he starts. And, of course, you know, he’s used to pretty much getting his way at home. Pretty much. Not on everything. So, I guess he thinks that can carry over into school, and we punish him whenever he comes back home. Like if he gets a bad conduct grade, he loves video games and loves cartoons. So there’s no cartoons, no video games for a whole week.

Interviewer: Oh if he’s punished from school?

M: Yeah. We don’t really spank him for it because it’s just his attitude, well not sitting still and not focusing, well he’s not listening to what he’s being told by the teacher. He does his work well. But he gets, he’s just… very fidgety in class, can’t keep still. So it’s like, and I’m telling him, you know, we’re trying to enforce it at home, “You need to sit still whenever your teacher tells to sit still. You can’t just do everything. Just because one person is throwing spitballs, you
(don’t) need to do it also. You need to sit still and listen.” So a teacher is supposed to be respected not... you’re not there to do whatever you want to do. You know, you’re going to school to learn not cut up. He gets punished definitely. He gets punished. But, um, it’s just not a good school. He cannot focus. With the whole class cutting up sometimes. The kids are cursing in class. And we either have to put him in a better school or have to put him in private school... well, in a Christian school.

During the first parent interview, Edward was enrolled at J.W. Faulk, one of the lowest performing schools in the district. From the excerpt of the first interview with Sheila above, it appears that she believed Edward’s behaviors were a product of the school environment he was in. Even though he was not necessarily made to mind at home (“He’s used to pretty much getting his way at home.”), she believed that changing his school would help.

After the first caregiver interview, Sheila did have the opportunity to move Edward to a better school. Because Edward is African American, he had the chance to be part of a minority-to-majority program that places minority students in higher performing (and typically predominantly White) schools. But, much to Sheila’s dismay, Edward’s problems did not stop once he was at his new school. The problems of inattention, fidgeting, and poor listening remained. Sheila was not sure what her next move should be to correct Edward’s problematic behaviors. She was adamant in the first caregiver interview that an ADHD diagnosis would be her absolute last resort. She did not like the idea of putting Edward on medication and did not feel comfortable taking him to a regular family physician to have him evaluated. If Edward were to be evaluated, he would have to go to a psychiatrist who was, according to Sheila, better qualified to handle matters of the brain.

Sheila had a friend whose child had recently been diagnosed with ADHD, and she believed that her first step of action might be to see what her friend had done and why. After
talking it over with the friend, if Edward’s behaviors continued, Sheila thought she would bring the necessary paperwork to school to have Edward evaluated by the teachers.

As was the case with Anna and Julie, problems at home complicated the diagnosis decision making process for Sheila. She noted that she was trying to “do her best” when raising her children, but she admitted to mostly trying to distance herself from the decisions her parents made. During the second caregiver interview, Sheila became very emotional when describing her childhood home life. Her father was disabled as she was growing up, and Sheila said her mother did nothing but focus her attention on her father. Everything in her childhood revolved around him. Sheila believed the consequences of her parents’ inattention toward their children had reverberated through the adult lives of her and her siblings. She described one brother as a drug addict. Her sister still refused to speak to the rest of the family. She worried constantly about her youngest brother, who was 14 years old and still living with her parents. She could not wait until he turned 18 so that he could leave the house for good. Sheila felt as though the burden to mend her broken family and to bring everyone together fell squarely on her shoulders. For her, the responsibility was often too much. Instead, she began dedicating herself to her church and to raising her children differently from her parents.

By the third interview, Edward’s behaviors seemed to settle down. Sheila noted that things had improved but did not elaborate on Edward’s school situation. It was not clear whether or not she followed through and sent evaluation paperwork to his teachers or if she had made him an appointment with a psychiatrist. By the last meeting, Edward’s behavior seemed like a non-issue. He did not receive an ADHD diagnosis.
Peter

Peter is the youngest of three children. His mother described him as an active and fun child, who loved to play sports and practical jokes. During all three interviews, Peter and his older brother, Bryan, were constantly in and out of the house moving from activity to activity. Although Peter was considered to be high risk because of his initial VADTRS score, Peter’s mother Becky would never consider putting him on medication to treat his behaviors. A diagnosis of ADHD and treatment by medication were no longer options after what she went through with Bryan just a year or two before.

The complaints about Bryan’s behaviors originated at school. When Bryan was in second grade, his teacher complained about his classroom behavior and insisted he get treated for it. Bryan struggled with blurting out answers and speaking out of turn. He was overactive. Becky had a difficult time responding impartially to the teacher’s remarks because Becky believed the teacher often treated Bryan unfairly. She remarked, “I think that it was always ‘Bryan, go in the corner,’ you know? ‘Until you can control yourself—go sit outside until you can control yourself.’ You know, whereas another kid that might have been less hyper but still to me, like, ‘Oh my God, sit down,’ but they were more patient with that child.”

Although she was resistant, Becky and her husband decided to pursue an ADHD diagnosis. They completed paperwork about his behaviors at home while the teacher assessed his behavior at school. Bryan was diagnosed with ADHD by a doctor, but Becky stopped short of putting him on medication. She reassessed the situation and wondered if maybe medication was not the answer. She said, “We were putting him on Adderall, and I got to the point that I was like, you know what? His grades aren’t affected. He can clearly focus at school. Why… What is the issue?”
Becky admitted that she and her family hardly used medicines of any sort, and she felt wrong about treating Bryan’s behaviors with them. Becky thought that the medicines would completely change Bryan, making him into a “zombie” and “zoning him out” too much. She believed that once Bryan was on medication, she and her husband would have a hard time taking him off of it because they would attribute any improvements in his behavior to the medicine’s effects. For them, the ends would not justify the means.

The following school year, Becky went to Bryan’s third grade teacher to discuss what she and her husband had decided. When Bryan’s teacher was asked if Bryan could behave in class, the teacher replied that “‘He’s a little boy. I mean, he’s all over the place. Whenever I give him a task to do,’ she says, ‘he’s fine.’” For Becky and her husband, the teacher’s response sealed their decision. Later that school year, Bryan’s situation improved dramatically. Shortly after starting third grade, he was tested and chosen for the gifted program. Since then, Becky reported that he had minimal problems with his behavior. Bryan stayed in his seat, did not bother other children in his class, and spoke out less. In addition to a personality conflict between Bryan and his second grade teacher, Becky believed some of Bryan’s behavior problems could have been because he was immature and not challenged enough before he entered a gifted classroom.

Becky’s struggles with Bryan set the tone for how Peter’s behaviors were viewed. Becky said pointedly, “Peter is not even an issue. He could be as hyper as could be, and he’s not getting Adderall.” Going through the diagnosis process with Bryan showed Becky that medication was not the right choice for her or her family. The risks of changing a child’s personality or failing to let “children be children” were too great compared to the benefits of medication. Even if the benefits to treatment were significant, the idea of keeping her children on medication indefinitely was scary to Becky. Regardless of Peter’s behaviors, a diagnosis of
ADHD was not the answer. Becky was willing to be more active with her children, keep them involved in sports, and work on learning self-control techniques with them if it meant a life without ADHD.

Becky completed all three caregiver interviews and reported no problems with Peter’s behaviors at school. He seemed to excel in the French Immersion program in which he was enrolled and did well in school overall. It seems that Peter’s behavior may never warrant intervention. Even if it did, Becky has her mind made up.

**Brandon**

By the time of the first caregiver interview, Tasha and her son Brandon had already been to several doctors about Brandon’s behaviors. Although she was pushed by daycare workers and Brandon’s early teachers to consider diagnosis, she herself noticed many of the behaviors they saw in their classrooms. She said, “When he was 3 years old, I thought he had ADHD way before she [the teacher] told me because Brandon was so active. I thought something was wrong with my child. I was like, ‘Oh my God!’ Like, he was like just so, so active. As soon as he learned how to walk, that was it. That was totally it. So I thought something was wrong with him.” She went to the doctor, she said, when Brandon was just three years old.

The pediatrician refused to put Brandon on medication at the age of three. The doctor believed that Brandon’s behaviors were completely age-appropriate and that a diagnosis of ADHD and subsequent treatment were premature. Tasha said the doctor told her, “He’s 3. He’s a toddler. He’s a boy, and that’s what they do.” The doctor reassured her that he would grow out of his hyperactivity and that he would be fine without intervention. Brandon’s pediatrician
even went so far as to write Tasha a letter to give to Brandon’s teachers saying that he did not have ADHD and that he would not be treated for it.

Tasha appreciated the reaction of her doctor. She liked the fact that the pediatrician wanted “children to be children” and did not prescribe medication unless the cases were severe. Tasha shared that several people she knew were struggling to get the dosage of medication right for their children and that the idea of turning her son into a “zombie” scared her. But her beliefs about medication were complicated. Her cousin’s child could not pay attention and was overly active in school. He brought home Ds and Fs on his report card. After adjusting the type and quantity of medicine, her cousin put the child on a “watered-down Ritalin” that improved both his behavior and his grades.

Brandon was struggling at school at the time of the interview. Tasha admitted that he was “acting out,” but she attributed his behavior to the fact that he was experiencing a lot of “unnecessary stress” at home. Tasha and Brandon’s father had a tumultuous relationship. She accused him of being very controlling and manipulative. In the weeks after the first interview, she planned to leave the house where they lived together with their two children and move in with her parents. Tasha had been saving money and quietly putting aside things she was planning on taking so that she could be ready when the day finally came. Tasha wanted to cut Brandon’s father completely out of their lives.

Because Tasha believed Brandon’s behaviors are caused by the stress he experiences at home and because she believed his pediatrician’s view that the behaviors are typical and temporary, Tasha did not seem to think Brandon would develop ADHD any time soon. More information about changes to Tasha and Brandon’s situation was impossible to collect, however.
All of Tasha’s numbers were disconnected or changed before the second interview took place, and she left no way to reach her.

Conclusions

This chapter recounts the stories of five mothers and their sons as decisions are made about whether or not to accept an ADHD diagnosis. While each story is unique, it is possible to draw a few conclusions from them collectively. Among these mother-son pairs, exploring and accepting a diagnosis seems to happen more often when there is trouble at home. Tyler’s mother struggled with a substance-abusing father. Edward’s mother felt under considerable pressure to hold her dysfunctional childhood family together while making positive changes in her immediate family. Brandon’s mother was waiting for the opportune time to escape the broken relationship she had with Brandon’s father. Although things had changed in Aaron’s family by the time he was born, his mother had suffered for nearly two decades living with an alcoholic spouse and had to explore diagnosis decisions during that time. Only Peter’s family seems to have escaped considerable disruption in their home lives. In the cases where families were resistant to diagnosis—specifically in Aaron’s and Peter’s cases—mothers had to dedicate substantial amounts of time and effort into improving behaviors and school performance. These mothers were pitted against teachers to define their children’s behaviors. If intervention failed, the teachers would prevail, and diagnosis would occur. A similar situation happened for Brandon and his mother. Already troubled by his behaviors, Brandon’s mother finally took him to the doctor after being confronted by his teacher concerning his disruptive classroom behavior. Brandon’s mother avoided a diagnosis for her son only because the pediatrician did not believe
that a diagnosis could be made at such an early age and because she believed Brandon’s behaviors to be temporary.

In four out of the five cases presented here, the mothers already had a child with ADHD or had already considered diagnosis for at least one of their own children. Only Edward’s family was the exception. The experiences the other four mothers had strongly influenced their decision-making process. Only one mother, Tyler’s, accepted a diagnosis. This may be because she firmly believed her sons’ disorders were genetic and caused by their father. The other three mothers rejected or chose not to explore an ADHD diagnosis for their sons. Aaron’s mother rejected the label of ADHD for her son because she believed that her son did not match the characteristics of an ADHD child. She attributed his disruptive behavior and poor school performance mostly to a conflict in personalities between Aaron and his teacher. Edward’s family did not pursue a diagnosis because it seems Edward’s behaviors began to mellow as he aged. Peter’s family rejected a diagnosis because they were actively opposed to medicating their children (for ADHD as well as other disorders). His mother believed that children should be allowed to “be children,” and regardless of how obnoxious Peter’s behaviors became, ADHD was just not a viable option for them to explore. Finally, Brandon’s mother failed to accept a diagnosis of ADHD because, although she herself believed he may have the disorder, Brandon’s pediatrician convinced her otherwise. Brandon’s mother fully accepted the pediatrician’s views that Brandon’s behavior was age-appropriate and, therefore, nothing to worry about.

These stories make it possible to watch ADHD diagnosis decision making as it happens in families. As was hypothesized, many families must make these important decisions under considerable stress from home.
Chapter 12: Discussion and Conclusions

Parsons (1951) wrote that sickness was a type of deviance from normal social role obligations and expectations. Defining what it means to be deviant or sick is often negotiated within the community, a complex task in larger societies where the boundaries of normal behavior may vary by or be contested according to social group.

The highly disputed nature of ADHD as a disorder means that there is a continual push and pull between community-established rules and regulations regarding childhood behavior and a family’s desires concerning diagnosis and treatment. This tension is believed to invite vagueness into the diagnosis process. The research presented here was designed to document and better understand the household decision making process related to ADHD. Four factors—two etic and two emic—whose relationship with ADHD symptom level were tested.

The first of these was caregiver stress. Caregiver stress was found to be significantly correlated with ADHD symptom level. While some have argued that children’s symptoms or caregivers’ own health problems cause parents’ stress to increase—and not the other way around—this research showed that health status and perceived stress in caregivers were correlated but meaningful in different ways in the assignment of ADHD symptoms by parents.

Regardless of the measure chosen to represent financial stress, the second factor of interest in this research, ADHD symptoms were significantly higher among families who had fewer financial resources.

Parents themselves indicated that poor parenting—characterized by inattention among parents and toward their children, which is especially common among young, single mothers—
was associated with ADHD symptom level. For parents, so-called “bad mothers” who exhibited these characteristics did not report higher symptom levels in their own children. Teachers, however, consistently rated children of “bad parents” higher for ADHD symptoms. The mother blame hypothesis suggests that bad mothers will have children with more ADHD symptoms. The analyses presented here suggest that there is no relationship between bad parenting and ADHD symptoms if parents’ reports of ADHD symptoms are the ones considered; if teachers’ reports are considered, however, the mother blame hypothesis appears to be supported.

Finally, beliefs about medication use were examined. Fear and aversion related to medication use were believed to play a potentially significant role in the acceptance of an ADHD diagnosis. During interviews, psychostimulant medications were seen as the primary treatment for ADHD. If these medications were not used, few alternatives were believed to exist. Of the 11 parents who explicitly used zombie metaphors in their interviews, 8 had children who were at high risk of developing ADHD. They met DSM-IV criteria for the disorder but remained undiagnosed. It is possible that resistance to medication keeps children likes these from being diagnosed with the disorder.

Discussion

These results indicate that—whether rightly or wrongly—communal beliefs and attitudes unrelated to a child’s biology are influential in the world of ADHD discourse and symptom assignment. For social scientists, this should not be an earth-shattering revelation. Chapter Two of this dissertation documents how the entire illness process is culturally and socially situated and, thus, ebbs and flows with the times (Conrad and Potter 2000). ADHD—with its inherent
ambiguity, undefined causation mechanisms, subjective symptom checklists, and nonexistent diagnostic tools—is not immune from these forces.

The changing ADHD nomenclature of the past 50 years demonstrates this phenomenon clearly enough. Attention-deficit/hyperactivity disorder was known simply as hyperactivity prior to the 1980s. A major definitional shift soon replaced hyperactivity with inattention as the disorder’s core feature. This shift was confirmed in the current analysis. Of the students who met DSM-IV criteria for ADHD but were undiagnosed, the overwhelming majority suffered from problems of inattention and not hyperactivity. Teachers’ interviews reflect an emerging trend in ADHD nomenclature, however: the idea of impulsivity. ADHD is now believed to limit one’s ability to reason through a problem or situation; instead, the individual lacks appropriate “self-inhibition” and gives into temptation too quickly. In the contemporary world, having difficulty of this sort is dangerous. Unfortunately, it is also increasingly common among members of “Generation Me,” an individual-oriented generation born in the 1970s and beyond that is often characterized as overwhelmingly self-centered (Twenge 2009). The contemporary world, for example, is filled with people, businesses, and countries who are spending more than they have. People are, in a very real sense, out of control, but their abnormal behavior is remade as disordered behavior. It remains to be seen just how the notions of executive functioning and impulsivity will play into the newest definition of ADHD that will be released in the DSM-V.

The emerging portrait of ADHD and its sufferers also speaks to other trends in domains like education and parenting. In this research, teachers reported higher mean and more restrictive behavioral expectations than parents. During their interviews, many teachers intimated that the demands they placed on students were the direct result of the structural constraints of the school environment. Teachers’ workdays were highly controlled, and the
demands they faced to complete their instruction goals were often unattainable. Because there is so much for teachers to do, having students learn appropriate classroom behaviors—or, as one teacher put it, learning how to do “what you’re told when you’re told to do it”—is not just helpful but essential to classroom success. In the 21st century world, schools are the prototypical work environment. Thus, to train successful adults, schools have historically “taught what businesses wanted: punctuality, reliability, and obedience—the virtues of a machine (Levine 1998:3).” ADHD children fall well outside the expectations of normal students; they also, therefore, fall short of the adult workers they are meant to be.

Parenting is said to be “a culturally constructed interface between the larger social environment and the development of children (Harkness and Super 1996:271). Parents are asked to make decisions about their children’s behavior even as the social world, including schools, negotiates ideas regarding normative behavior, expectations, and disorder around them. Furthermore, parents are facing their own behavioral expectations imposed on them by others. Before formal education begins, teachers expect parents to train their children how to “socially behave” at school. Once children enter the school system, parents are expected to stay actively involved. In order to fulfill their social roles at home, parents must ensure that certain qualities—stability, discipline, structure, and routine—are not only present but maintained at socially appropriate levels. These expectations are, of course, in addition to any parents have in the wage labor economy. Achieving balance, the ultimate goal for parents, is rather elusive, especially amidst competing models of parenting. On the one hand, parents protect their children from the world and maintain a simplified home environment—to let, in the words of one parent interviewed in this study, “kids be kids.” On the other, they must provide an enriching and
stimulating environment that is critical for learning the socially acceptable behavior and self-regulation necessary for school and life (DeCaro and Worthman 2007).

It appears that this sharing of appropriate parenting ideals and childhood behavioral expectations is more problematic for parents than teachers. While there was consensus among teachers as to what constituted normal childhood behavior, for example, no such agreement was found among parents. During interviews, several parents remarked that they saw no trouble with their children’s behaviors and did not view them as abnormal until they were confronted by teachers. Despite their best efforts, parents may have children who still develop ADHD; certain structural and cultural constraints keep them from being the “good” parents they need to be in order to minimize risk. While there is considerable discussion in the anthropological literature about the collective sharing of knowledge, little is known about how models are reformulated or, perhaps, destroyed and replaced with new ones. When confronted with ADHD, it appears that some parents discard their own notions of appropriate childhood behavior and replace them with ideas that more closely match those of their students’ teachers. The case of Tyler, mentioned in Chapter 11, serves as an example of this. After his diagnosis, Tyler’s mother attended counseling sessions that taught her how behavior should look at home and how to deal with errant behavior. The exact processes by which these models are affected by the illness decision making—whether they are reshaped or completely dismissed and another adopted—should be of ongoing interest in future anthropological literature on ADHD.

The DSM, which outlines definitions for disorders like ADHD, is a “guidebook that tells us how we should think” (Kutchins and Kirk 1997:11). It governs the logic related to illness in all of the country’s most important social institutions, in the media, and in families. This
research suggests that bad parents (or mothers) are held accountable for their children’s level of ADHD symptoms.

Research Implications

It is believed that this research has the potential to impact many fields interested in ADHD. While numerous, the contributions to and the practical applications of this research are outlined for four groups of people who are most likely to be directly influenced: anthropologists, teachers, doctors, and parents.

This research continues the tradition of studies on the normal and abnormal, of childhood and its disorders, and the relationship between illness outcomes and household strain and widely held cultural ideals. Perhaps the greatest contribution this research offers is that it provides an example of biocultural work in each of these fields. This research has attempted to balance the physical body with the social understandings of it, to test etic and emic notions of etiology, and to situate family-level processes in the greater social world. It is hoped that this research provides insight into conducting biocultural research in the future.

In schools, ADHD is a hot-button issue. Nearly every teacher in the study reported having an ADHD student in the classroom. Both direct exposure to the disorder and the sharing of indirect information are common. Teachers had more highly developed models of ADHD as a disorder that included notions of impulsivity; this suggests the training they receive on the disorder is up-to-date and absorbed. What this research indicates, however, is that teacher bias does exist and likely contributes to the over-diagnosis of ADHD. As long as the current definition of ADHD, which establishes a biological basis for problematic behaviors, stands, future training for educators should reinforce the idea that parents cannot be held accountable for
ADHD symptoms. Currently, teachers are held responsible for completing an evaluation of behavior that parents must present to a doctor to begin the diagnosis process. It is probable that many teachers will have difficulty separating the symptoms they see in classrooms from the interactions they have with parents. A third-party evaluator, such as a school counselor or social worker, may be necessary to ensure more objective observations of a child’s behavior.

The reliability of behavioral evaluations poses a real problem for medical professionals as well. Doctors who form the third party in the ADHD diagnosis decision-making process are often general practitioners or pediatricians with relatively limited experience in the diagnosis and treatment of psychiatric disorders. They also rely heavily on the initial teacher and parent evaluations to aid their decisions. These doctors should understand that these evaluations are unlikely to be objective observations of behavior. At the very least, doctors should perform their own evaluations of behavior although these may be better handled by child psychiatrists. Also, one of the most prominent barriers to ADHD diagnosis in this study was treatment with psychostimulant medications. In the best interest of the child, the doctor should explore alternative treatment options with parents to correct any problematic behaviors that may exist.

Some teachers are thought to be biased against those they believe are ‘bad’ parents; this bias manifests itself at least in terms of reported ADHD symptoms. To be fair to teachers, however, it should be acknowledged that bad parents do exist and that their poor skills as parents probably contribute to the unruly behavior seen in their children. If caregivers want to protect themselves from being labeled as bad parents and if they want to protect their children from a diagnosis of ADHD, they should strive to meet the social role established for them by teachers. Regardless of whether or not it is right to do so, children are judged based on their parents’
behavior. Because of the potential for bias among teachers, parents should exercise caution when faced with a possible diagnosis of ADHD.

Limitations

There are several limitations to the present study. Less than 75% of the study’s original participants completed the first and last interviews. The decline in participation was most evident among caregivers of students at greatest risk of developing ADHD. It was hypothesized that strain at home caused an increased reporting of ADHD symptoms. It is possible that those caregivers who failed to complete the interview process were under the most strain.

The drop off in participation also affected the research methods used. Originally, the research was designed to be a prospective study that not only demonstrated relationships between variables but could demonstrate casual mechanisms in ADHD symptom ascription. The ability to perform certain statistical analyses was hampered by the decline in participation.

Some groups of people are noticeably absent from this study as well. Only those reporting their ethnic identities as White or Black were interviewed for this research. Although the study sample closely resembles Lafayette’s ethnic makeup, it is still important to evaluate the research topics presented here among other ethnic groups. Fathers are similarly absent from the research process. Only two were interviewed in the study, and only one completed all three interviews. Although focusing on mothers’ beliefs about ADHD and related domains was not the original intent of the research, it positively transformed the research by opening up additional research questions. Mothers were the ones who articulated the model of mother blame and the responsibilities that fall primarily to them as caregivers for their children at home and in schools. Also, mothers—not fathers or sets of parents— are repeatedly mentioned in the ADHD decision-
making process. For ADHD at least, focusing on mothers’ beliefs may have given a more accurate description of household illness decision making.

**Future Directions for Research**

Nearly every academic field has contributed in some way to the field of ADHD studies. Although the research that has already been generated is considerable, there is still much that can be learned about the disorder. Offered below are a few suggestions for future empirical research.

This project purposely recruited a narrow age range of students, focusing on the median age of diagnosis. Historically, the median age of diagnosis—age 7—is also the time by which ADHD symptoms should have appeared. Because age 7 is the median age of diagnosis, a full half of students are diagnosed with ADHD in later years, however. It would be interesting to compare the diagnosis process among families with older children to those with younger children. Not only are the expectations of the children changing as they age but it is likely that the demands of parents are evolving as well. Documenting this process is important to understanding risk across the lifespan.

While its focus was on a disorder of children, this research does not include the voices of children themselves. The illness decision-making process typically does not involve young children, but their interpretations of normalcy, perceptions of expected behavior, and experiences with the disorder would be an invaluable contribute to the literature on ADHD.

Another important avenue of research would be to document normative behavior, the appearance of ADHD symptoms, and the diagnosis process of children who are enrolled in alternative educational programs, such as home school and Montessori schools. These nontraditional avenues are highly valued for offering learning environments that are different
from traditional schools. They are believed to provide more flexibility in the daily schedule and in the pathways to learning. It is hypothesized that alternative educational programs would support broader ranges of normative childhood behavior and would have lower reported symptoms of ADHD than children in traditional classroom settings.

Finally, psychostimulant medications are considered a primary—if not sole—treatment option for ADHD. In various portions of the world, these medications are either viewed less favorably or are less readily available. It would be interesting to see how definitions of abnormal behavior change and how the ADHD decision-making process is affected in areas like this.

Conclusions

This research has demonstrated the relationship between several variables—caregiver strain, financial stress, beliefs about parenting, and medication fears—and ADHD symptom level. It appears that a diagnosis of ADHD means that a child has failed to meet his or her established social roles. An ADHD diagnosis may also mean that parents have failed to meet their prescribed social roles regardless of whether it is because of strain they face in their home lives or because they match a stereotype of bad parenting.

Stressful home situations, bad mothers, and biased teachers certainly exist. It is highly likely that they contribute to the rise in ADHD diagnosis seen in recent years. What is clear from this research is that the definitions of ADHD and ADHD risk need to be reexamined. Either a more inclusive definition of ADHD, in which casual mechanisms are more broadly identified, is needed or the behaviors that occur as a result of problems with a child’s home need to be successfully separated from ADHD and labeled as something else. Until then, identifying those at risk and the specific risk factors for ADHD will remain problematic.
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APPENDIX A

Phase 1: Initial Parent Consent

University of Alabama ADHD Research Study
Consent Form to Participate in Research
Return by Wednesday, March 24, 2010

March 22, 2010

My name is Jenelle Doucet, and I am a Ph.D. student at the University of Alabama. Under the supervision of Dr. Kathryn Oths, Ph.D., I am doing a research project as part of my training.

For my project, I would like to learn how children develop Attention-Deficit Hyperactivity Disorder (ADHD). I plan to follow a group of elementary students who do not have ADHD and their families to see what might protect students from ADHD and what might lead to it. The goal is to help us improve diagnosis and treatment in the future.

I would like to have your child’s teacher fill out a short survey about how your child acts in the classroom. The results of this survey are only for my use, and only the teacher and I will know the scores. The info your child’s teacher gives me will be kept locked at my home for a year to keep it safe and private. Your child will not be treated any differently by his or her teacher based on these scores. There will be no consequences if you choose not to participate. There is no cost to be in this study. The results of the study will only be reported in the form of statistical data not connected to any individual children.

If you agree to do the first part of my study, you may get another letter asking you and your child to be part of the rest of my study. Even if you decide to participate in this part and sign the attached form, you may not be contacted for an interview because only 50 participants will be chosen.

If you have questions or concerns about the study, you may call me at 662-801-1015 (not a local number) or e-mail me at jctownsend@crimson.ua.edu. My teacher Dr. Oths can also be reached through the Department of Anthropology; the office’s number is 348-5947. Also, if you have any questions about your rights as a research participant, you may contact Ms. Tanta Myles, The University of Alabama Research Compliance Officer, at 205-348-5152. Although the Lafayette Parish School System has agreed to cooperate with this project, this does not mean that they agree or disagree with the project’s purpose or result. Please return the attached form by March 24, 2010, if you would like to take part in the study. Be sure to keep this form for your records. Thank you for your support.

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I have read and understood this consent form. By signing this consent form, I agree to let my child’s classroom teacher fill out a short survey about how my child acts in the classroom.

Name of Child

Child’s Teacher

Name of Guardian          Phone Number

Signature of Guardian          Date

Has a doctor or health professional ever told you that your child has attention-deficit disorder or attention-deficit/hyperactivity disorder, that is, ADD or ADHD?

________ Yes          ________ No
APPENDIX B

Phase 2: Caregiver Consent Form for Semi-Structured Interviews

University of Alabama ADHD Research Study
Consent Form to Participate in Research

You are being asked to be in a research study. This study is called “A Prospective Examination of ADHD (Attention-Deficit Hyperactivity Disorder) Diagnosis Among Elementary School Students.” It is not just a study about children with ADHD. It is a study to understand all children’s behavior. This study is being done by Mrs. Jenelle Doucet. She is being supervised by Professor Kathryn Oth’s who is a professor of anthropology at the University of Alabama.

What is this study about?
ADHD is a big problem for children in the United States, but scientists do not understand exactly what causes it. This study wants to look at elementary kids before they are diagnosed with ADHD to see how their families, schools, and community can protect them from ADHD or make it more likely that they get ADHD. You will be asked to rate your child’s behavior, to tell us about your health and your job situation, and to talk about your child’s school life. You will also be asked about some of your personal or family characteristics such as age, education, occupation, and approximate income.

Why is this study important—What good will the results do?
The findings will help scientists and teachers better understand who gets ADHD. This will help them find people with ADHD and give them better treatment.

Why have I been asked to take part in this study?
You responded to a letter sent home with your child from his or her elementary school. You told us that you are a parent or caregiver of a child in kindergarten or first grade who does not have ADHD. You gave us your contact information.

How many other people will be in this study?
The investigator hopes to interview about 50 families from Lafayette over the next nine months.

What will I be asked to do in this study?
If you agree to be in this study, Mrs. Doucet will interview you in your home or a place of your own choosing about your child and his or her behavior, about your family life, and about your life as a parent or caregiver. There will be three (3) interviews in all: one between June and July, one between November and December, and one between April and May. The interviewer would like to record the interview to be sure that all your words are captured accurately. However, if you do not want to be taped, simply tell the interviewer, who will then take handwritten notes.

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With your permission, Mrs. Doucet may also like to talk to your child at another time. She will ask your child some questions about school and about how other kids behave in his or her class at school. The interview will not last more than one hour.

**How much time will I spend being in this study?**
The interview should last about 30-45 minutes, depending on how much information about your experiences you choose to share.

**Will being in this study cost me anything?**
The only cost to you from this study is your time.

**Will I be compensated for being in this study?**
In appreciation of your time, you will receive $15 for each interview completed. If you complete all three (3) interviews, you will receive an extra $15.

**What are the risks (problems or dangers) from being in this study?**
The chief risk to you is that you may find the discussion of your experiences to be sad or stressful. You can control this possibility by not being in the study, by refusing to answer a particular question, or by not telling us things you find to be sad or stressful.

**What are the benefits of being in this study?**
There are no direct benefits to you unless you find it pleasant or helpful to describe your experiences with your child, your home, and your personal life. You may also feel good about knowing that you have helped scientists and teachers understand child behavior and ADHD better.

**How will my privacy be protected?**
You are free to decide where we will visit you so we can talk without being overheard. We will visit you in the privacy of your home or in another place that is convenient for you.

**How will my confidentiality be protected?**
The only place where your name appears in connection with this study is on this informed consent. The consent forms will be kept in a locked file drawer in Mrs. Doucet’s home, which is locked when she is not there. When I record the interview, I will not use your name, so no one will know who you are on the tape. Once back in my office, I will type out the interview. When the interviews have been typed, the recordings will be destroyed. This should occur within one month of the interview. You may also refuse to be recorded, in which case Mrs. Doucet will take handwritten notes.

Mrs. Doucet will write research articles on this study but participants will be identified by names randomly given to them. No one will be able to recognize you.

**What are the alternatives to being in this study?**
The only alternative is not to participate.
**What are my rights as a participant?**
Being in this study is totally voluntary. It is your free choice. You may choose not to be in it at all. If you start the study, you can stop at any time. You will still receive the gift card even if you stop the interview. Not participating or stopping participation will have no effect on your relationships with the University of Alabama.

The University of Alabama Institutional Review Board is a committee that looks out for the ethical treatment of people in research studies. They may review the study records if they wish. This is to be sure that people in research studies are being treated fairly and that the study is being carried out as planned.

**Who do I call if I have questions or problems?**
If you have questions about this study right now, please ask them. If you have questions later on, please call Mrs. Doucet at 662-801-1015. If you have questions or complaints about your rights as a research participant, call Ms. Tanta Myles, the Research Compliance Officer of the University at 205-348-8461.

You may also ask questions, make a suggestion, or file complaints and concerns through the IRB Outreach Website at http://osp.ua.edu/site/PRCO_Welcome.html. After you participate, you are encouraged to complete the survey for research participants that is online there, or you may ask Mrs. Doucet for a copy of it. You may also e-mail us at participantoutreach@bama.ua.edu.

I have read this consent form. I have had a chance to ask questions.

<table>
<thead>
<tr>
<th>Signature of Research Participant</th>
<th>Date</th>
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<table>
<thead>
<tr>
<th>Signature of Investigator</th>
<th>Date</th>
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</table>
APPENDIX C

Phase 2-A: Caregiver Interview 1 Schedule

ID _____________

Part 1: Demographics
How old are you? _______
Gender M F
What is your ethnicity? Ethnicity ___________________
Are you married? Yes No
Do you currently work? Yes No About how many hours a week? _______
Are you scheduled on shift work?
_____ Yes, but without nightshift
_____ Yes, with nightshift
_____ No
What was the highest grade of school that you completed? _______

Which of the following types of assistance do you currently receive?
_____ Social Security Disability
_____ SSI
_____ AFDC (Aid to Families with Dependent Children)
_____ Food Stamps
_____ Unemployment
_____ Medicaid
_____ Child Support

Is there someone you could borrow money from if you had trouble paying your bills? Y N

Part 2: VADPRS (Vanderbilt ADHD Diagnostic Parent Rating Scale)

Part 3: Now I’d like to talk to you a little about your health. I am going to read you a list of sentences. If you agree with the sentence, please answer “agree”. If you disagree, please answer “disagree”.

agree disagree I'm tired all the time.
(dis)agree: a little / a lot
agree disagree I have pain at night.
(dis)agree: a little / a lot
agree disagree Things are getting me down.
I have unbearable pain.

I take pills to help me sleep.

I've forgotten what it's like to enjoy myself.

I'm feeling on edge.

I find it painful to change position.

I feel lonely.

I can walk about only indoors.

I find it hard to bend.

Everything is an effort.

I'm waking up in the early hours of the morning.

I'm unable to walk at all.

I'm finding it hard to make contact with people.

The days seem to drag.

I have trouble getting up and down stairs and steps.

I find it hard to reach for things.

I'm in pain when I walk.

I lose my temper easily these days.

I feel there is nobody that I am close to.

I lie awake for most of the night.

I feel as if I'm losing control.

I'm in pain when I'm standing.
(dis)agree: a little / a lot
agree disagree I find it hard to get dressed by myself.
(dis)agree: a little / a lot
agree disagree I soon run out of energy.
(dis)agree: a little / a lot
agree disagree I find it hard to stand for long (e.g., at the kitchen sink, (dis)agree: a little / a lot waiting in a line).
(dis)agree: a little / a lot
agree disagree I'm in constant pain.
(dis)agree: a little / a lot
agree disagree It takes me a long time to get to sleep.
(dis)agree: a little / a lot
agree disagree I feel I am a burden to people.
(dis)agree: a little / a lot
agree disagree Worry is keeping me awake at night.
(dis)agree: a little / a lot
agree disagree I feel that life is not worth living.
(dis)agree: a little / a lot
agree disagree I sleep badly at night.
(dis)agree: a little / a lot
agree disagree I'm finding it hard to get along with people.
(dis)agree: a little / a lot
agree disagree I need help to walk about outside (e.g., a walking aid or (dis)agree: a little / a lot someone to support me).
agree disagree I'm in pain when going up or down stairs.
(dis)agree: a little / a lot
agree disagree I wake up feeling depressed.
(dis)agree: a little / a lot
agree disagree I'm in pain when I'm sitting.

**Part 4:** Next, I am going to read you a few statements about what your child’s school is like. If you agree with the sentence, please answer "agree". If you disagree, please answer "disagree".

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(disagree) a little / a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>The activities my child does now will affect if he or she goes to college.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel pressure to make sure my child is learning outside of school.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe my child is not learning enough in school to prepare him or her for the future.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child’s school is too competitive.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

310
I worry that if I let my child just “be a child,” he or she will not do as well in school as other children.

Agree    Disagree    (disagree) a little    /    a lot

Other parents at my child’s school put their children in activities out of school to make them better students.

Agree    Disagree    (disagree) a little    /    a lot

It is important to give my child a leg up at school by giving him or her extra activities, books, or lessons.

Agree    Disagree    (disagree) a little    /    a lot

If parents want their children to do well in school, what do they do?

What is the most surprising thing you have heard other parents doing to help their child do better in school?

**Part 5:** Next, I am going to read you a few statements about what your job is like. If you agree with the sentence, please answer ”agree”. If you disagree, please answer ”disagree”.

I have constant time pressure due to a heavy work load.

Agree    Disagree    (disagree) a little    /    a lot

I receive the respect I deserve from my superiors.

Agree    Disagree    (disagree) a little    /    a lot

I have experienced or I expect to experience an undesirable change in my work situation.

Agree    Disagree    (disagree) a little    /    a lot

People close to me say I sacrifice too much for my job.

Agree    Disagree    (disagree) a little    /    a lot

Considering all my efforts and achievements, my salary/income is adequate.

Agree    Disagree    (disagree) a little    /    a lot

I have many interruptions and disturbances in my job.

Agree    Disagree    (disagree) a little    /    a lot

My current occupational position adequately reflects my education and training.

Agree    Disagree    (disagree) a little    /    a lot
I experience adequate support in difficult situations.  
Agree  Disagree  (disagree) a little  /  a lot

I have a lot of responsibility in my job.  
Agree  Disagree  (disagree) a little  /  a lot

Work rarely lets me go, it is still on my mind when I go to bed.  
Agree  Disagree  (disagree) a little  /  a lot

Considering all my efforts and achievements, my work prospects are adequate.  
Agree  Disagree  (disagree) a little  /  a lot

If I postpone something that I was supposed to do today I’ll have trouble sleeping at night.  
Agree  Disagree  (disagree) a little  /  a lot

I receive the respect I deserve from my colleagues.  
Agree  Disagree  (disagree) a little  /  a lot

My job security is poor.  
Agree  Disagree  (disagree) a little  /  a lot

I am often pressured to work overtime.  
Agree  Disagree  (disagree) a little  /  a lot

Over the past few years, my job has become more and more demanding.  
Agree  Disagree  (disagree) a little  /  a lot

My job is physically demanding.  
Agree  Disagree  (disagree) a little  /  a lot

When I get home, I can easily relax and ‘switch off” work.  
Agree  Disagree  (disagree) a little  /  a lot

I am treated unfairly at work.  
Agree  Disagree  (disagree) a little  /  a lot

Considering all my efforts and achievements, I receive the respect and prestige I deserve at work.  
Agree  Disagree  (disagree) a little  /  a lot

As soon as I get up in the morning I start thinking about work problems.  
Agree  Disagree  (disagree) a little  /  a lot

My job promotion prospects are poor.  
Agree  Disagree  (disagree) a little  /  a lot

I get easily overwhelmed by time pressures at work.  
Agree  Disagree  (disagree) a little  /  a lot

Part 6: The next group of questions asks you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don’t try to count up the number of times you felt a particular way, but rather choose the answer that seems like a reasonable estimate. For each question, you will have 5 choices:
0. never
1. almost never
2. sometimes
3. fairly often
4. very often.

1. In the last month, how often have you been upset because of something that happened unexpectedly?
   never  almost never  sometimes  fairly often  very often
2. In the last month, how often have you felt that you were unable to control the important things in your life?
   never  almost never  sometimes  fairly often  very often
3. In the last month, how often have you felt nervous and “stressed?”
   never  almost never  sometimes  fairly often  very often
4. In the last month, how often have you dealt successfully with irritating life hassles?
   never  almost never  sometimes  fairly often  very often
5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?
   never  almost never  sometimes  fairly often  very often
6. In the last month, how often have you felt confident about your ability to handle your personal problems?
   never  almost never  sometimes  fairly often  very often
7. In the last month, how often have you felt that things were going your way?
   never  almost never  sometimes  fairly often  very often
8. In the last month, how often have you found that you could not cope with all the things that you had to do?
   never  almost never  sometimes  fairly often  very often
9. In the last month, how often have you been able to control irritations in your life?
   never  almost never  sometimes  fairly often  very often
10. In the last month, how often have you felt that you were on top of things?
    never  almost never  sometimes  fairly often  very often
11. In the last month, how often have you been angered because of things that happened that were outside of your control?
    never  almost never  sometimes  fairly often  very often
12. In the last month, how often have you found yourself thinking about things that you have to accomplish?
    never  almost never  sometimes  fairly often  very often
13. In the last month, how often have you been able to control the way you spend your time?
    never  almost never  sometimes  fairly often  very often
14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
    never  almost never  sometimes  fairly often  very often
Part 7: Open-ended questions

What have you heard people say causes ADHD?

What do you think causes ADHD?

If you found out your child had ADHD, how would your family life be different?

Which of these categories best describes how much money your family earns in a year?
$20,000 or less
$20,000-40,000
$40,000-60,000
$60,000-80,000
$80,000-100,000
$100,000+

Is there anything else you would like to tell me about your experiences with ADHD?

Do you know of anyone else that may be interested in doing this interview?
APPENDIX D

Phase 2-B: Caregiver Interview 2 Schedule

**ID____________**

**Part I: Demographics**
How old are you? ______
Are you married? Yes No
Do you currently work? Yes No About how many hours a week? ______

Which of the following types of assistance do you currently receive?
  _____ Social Security Disability
  _____ SSI
  _____ AFDC (Aid to Families with Dependent Children)
  _____ Food Stamps
  _____ Unemployment
  _____ Medicaid
  _____ Child Support

Is there someone you could borrow money from if you had trouble paying your bills? Y N

**Part 2:** Next I want to ask you how often a 1\textsuperscript{st} or 2\textsuperscript{nd} grader without ADD or ADHD should be able to do a list of things. The answers are on a scale of 1 to 5, 1 being that a normal child should never do each activity and 5 being a normal child should always do it. How often should a child be expected to…

Do school and homework without making careless mistakes?
  1  2  3  4  5
Stay focused on an activity or task
  1  2  3  4  5
Listen when spoken to
  1  2  3  4  5
Finish his/her school work
  1  2  3  4  5
Be organized tasks or activities
  1  2  3  4  5
Sit and do an activity that may be boring
  1  2  3  4  5
Keep track of things needed for school like books or school assignments
  1  2  3  4  5
Pay attention without getting distracted

| 1 | 2 | 3 | 4 | 5 |

Remember to do daily activities like brushing teeth

| 1 | 2 | 3 | 4 | 5 |

Sit still without fidgeting

| 1 | 2 | 3 | 4 | 5 |

Do what he or she is told by the teacher

| 1 | 2 | 3 | 4 | 5 |

Be hyper

| 1 | 2 | 3 | 4 | 5 |

Play games or do activities quietly

| 1 | 2 | 3 | 4 | 5 |

Be ‘always on the go’

| 1 | 2 | 3 | 4 | 5 |

Talk too much

| 1 | 2 | 3 | 4 | 5 |

Blurts out answers to questions

| 1 | 2 | 3 | 4 | 5 |

Be impatient

| 1 | 2 | 3 | 4 | 5 |

To interrupt a conversation

| 1 | 2 | 3 | 4 | 5 |

Play outside

| 1 | 2 | 3 | 4 | 5 |

Act out

| 1 | 2 | 3 | 4 | 5 |

**Part 3:** Now I’d like to talk to you a little about your health. I am going to read you a list of sentences. If you agree with the sentence, please answer "agree". If you disagree, please answer "disagree".

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
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<tbody>
<tr>
<td>Agree</td>
<td>Disagree</td>
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<tr>
<td>Agree</td>
<td>Disagree</td>
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<td>Agree</td>
<td>Disagree</td>
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<td>Agree</td>
<td>Disagree</td>
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<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>Agree</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

I'm tired all the time.
I have pain at night.
Things are getting me down.
I have unbearable pain.
I take pills to help me sleep.
I've forgotten what it's like to enjoy myself.
I'm feeling on edge.
<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>Statement</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I find it painful to change position.</td>
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<td></td>
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<td>Everything is an effort.</td>
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<td></td>
<td>I'm waking up in the early hours of the morning.</td>
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<td></td>
<td></td>
<td>I'm unable to walk at all.</td>
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<td></td>
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<td></td>
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<td>The days seem to drag.</td>
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<td>I find it hard to reach for things.</td>
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<td>I'm in pain when I walk.</td>
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<td>I lose my temper easily these days.</td>
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<td>I feel there is nobody that I am close to.</td>
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<td>I lie awake for most of the night.</td>
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<td>I feel as if I'm losing control.</td>
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<td>I'm in pain when I'm standing.</td>
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<tr>
<td></td>
<td></td>
<td>I'm in constant pain.</td>
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agree disagree I wake up feeling depressed.
(dis)agree: a little / a lot
agree disagree I'm in pain when I'm sitting.
(dis)agree: a little / a lot

Part 4: VADPRS (Vanderbilt ADHD Diagnostic Parent Rating Scale)

Part 5: Open-Ended Questions, Home Life

For children in 1\textsuperscript{st} or 2\textsuperscript{nd} grade, what is a good home life like?

What sorts of things do you need in your home?

What things do you need to keep out of your home?

What keeps families from having a good home life?
Part 6: Now I’d like to talk to you a little about your opinions about what you think is important in life. I am going to read you a list of sentences. If you agree with the sentence, please answer “agree”. If you disagree, please answer “disagree”.

Getting the best assignments and fast promotions at work is important to me.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

I would be disappointed if my children did not qualify for "gifted and talented" programs.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

While it's hard for most people to do, I think I can have a strong family life and a very successful career.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

I would never consider a career that doesn't automatically command respect from strangers.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

Being known as a prominent person in the community is important to me.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

I get very upset with myself if I forget something I'm supposed to do.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

I don't think it is possible for a person to reach excellence in all aspects of life.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

I feel I must socialize on the weekends even if I'm tired.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

Being told that I'm great at everything I do would be an incredible compliment to me.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

I think it is very important that parents provide multiple opportunities for their children in terms of dance, art, and music classes.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

As a parent, I try to attend all of the school functions of my children.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

I don't care whether people notice things I do well.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

Respect from coworkers and peers is very important for my self-esteem.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

I model myself after other people who "have it all" – successful marriages, careers, and great kids.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

I would be embarrassed by public recognition of achievement.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little</th>
<th>/</th>
<th>a lot</th>
</tr>
</thead>
</table>

Part 5: Next, I am going to read you a few statements about what your job is like. If you agree with the sentence, please answer "agree". If you disagree, please answer "disagree".

I have constant time pressure due to a heavy work load.

319
I receive the respect I deserve from my superiors.
Agree  Disagree  (dis)agree a little  /  a lot

I have experienced or I expect to experience an undesirable change in my work situation.
Agree  Disagree  (dis)agree a little  /  a lot

People close to me say I sacrifice too much for my job.
Agree  Disagree  (dis)agree a little  /  a lot

Considering all my efforts and achievements, my salary/income is adequate.
Agree  Disagree  (dis)agree a little  /  a lot

I have many interruptions and disturbances in my job.
Agree  Disagree  (dis)agree a little  /  a lot

My current occupational position adequately reflects my education and training.
Agree  Disagree  (dis)agree a little  /  a lot

I experience adequate support in difficult situations.
Agree  Disagree  (dis)agree a little  /  a lot

I have a lot of responsibility in my job.
Agree  Disagree  (dis)agree a little  /  a lot

Work rarely lets me go, it is still on my mind when I go to bed.
Agree  Disagree  (dis)agree a little  /  a lot

Considering all my efforts and achievements, my work prospects are adequate.
Agree  Disagree  (dis)agree a little  /  a lot

If I postpone something that I was supposed to do today I’ll have trouble sleeping at night.
Agree  Disagree  (dis)agree a little  /  a lot

I receive the respect I deserve from my colleagues.
Agree  Disagree  (dis)agree a little  /  a lot

My job security is poor.
Agree  Disagree  (dis)agree a little  /  a lot

I am often pressured to work overtime.
Agree  Disagree  (dis)agree a little  /  a lot

Over the past few years, my job has become more and more demanding.
Agree  Disagree  (dis)agree a little  /  a lot

My job is physically demanding.
Agree  Disagree  (dis)agree a little  /  a lot

When I get home, I can easily relax and ‘switch off’ work.
Agree  Disagree  (dis)agree a little  /  a lot

I am treated unfairly at work.
Agree  Disagree  (dis)agree a little  /  a lot

Considering all my efforts and achievements, I receive the respect and prestige I deserve at work.
Agree  Disagree  (dis)agree a little  /  a lot

As soon as I get up in the morning I start thinking about work problems.
Agree  Disagree  (dis)agree a little  /  a lot

My job promotion prospects are poor.
Agree  Disagree  (dis)agree a little  /  a lot
I get easily overwhelmed by time pressures at work.

Agree     Disagree     (dis)agree a little / a lot

Part 6: The next group of questions asks you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don’t try to count up the number of times you felt a particular way, but rather choose the answer that seems like a reasonable estimate. For each question, you will have 5 choices:
0. never
1. almost never
2. sometimes
3. fairly often
4. very often.

1. In the last month, how often have you been upset because of something that happened unexpectedly?
   never    almost never    sometimes    fairly often    very often
2. In the last month, how often have you felt that you were unable to control the important things in your life?
   never    almost never    sometimes    fairly often    very often
3. In the last month, how often have you felt nervous and “stressed?”
   never    almost never    sometimes    fairly often    very often
4. In the last month, how often have you dealt successfully with irritating life hassles?
   never    almost never    sometimes    fairly often    very often
5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?
   never    almost never    sometimes    fairly often    very often
6. In the last month, how often have you felt confident about your ability to handle your personal problems?
   never    almost never    sometimes    fairly often    very often
7. In the last month, how often have you felt that things were going your way?
   never    almost never    sometimes    fairly often    very often
8. In the last month, how often have you found that you could not cope with all the things that you had to do?
   never    almost never    sometimes    fairly often    very often
9. In the last month, how often have you been able to control irritations in your life?
   never    almost never    sometimes    fairly often    very often
10. In the last month, how often have you felt that you were on top of things?
    never    almost never    sometimes    fairly often    very often

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11. In the last month, how often have you been angered because of things that happened that were outside of your control?
  never  almost never  sometimes  fairly often  very often
12. In the last month, how often have you found yourself thinking about things that you have to accomplish?
  never  almost never  sometimes  fairly often  very often
13. In the last month, how often have you been able to control the way you spend your time?
  never  almost never  sometimes  fairly often  very often
14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
  never  almost never  sometimes  fairly often  very often

Which of these categories best describes how much money your family earns in a year?
$20,000 or less
$20,000-40,000
$40,000-60,000
$60,000-80,000
$80,000-100,000
$100,000+
APPENDIX E

Phase 2-C: Caregiver Interview 3 Schedule

ID ____________

Part I: Demographics
How old are you? _______
Are you married? Yes No
Do you currently work? Yes No About how many hours a week? _______

Which of the following types of assistance do you currently receive?
_____ Social Security Disability
_____ SSI
_____ AFDC (Aid to Families with Dependent Children)
_____ Food Stamps
_____ Unemployment
_____ Medicaid
_____ Child Support

Which of these categories best describes how much money your family earns in a year?
$20,000 or less
$20,000-40,000
$40,000-60,000
$60,000-80,000
$80,000-100,000
$100,000+

What is your child’s race or ethnicity? _________________

If child is diagnosed:
How old was your child when you first started thinking about an ADHD diagnosis? _____
At what point during the year was it? (e.g. fall, summer) _________________

Part 1: I want to ask you about how much time you spend doing certain things with your child here at home and at school. For each question, you will have five (5) choices with (1) being you never do each of these and (5) being you always do each of them.

1 = never
2 = almost never
3 = sometimes
4 = most of the time
5 = always

How often do you…

<table>
<thead>
<tr>
<th>Activity</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer in your child’s classroom (field trips, parties, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attend parent-teacher organization meetings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take your children on outings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eat family meals together</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spend time playing with your child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limit how much TV your child can watch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limit your child’s time at the computer</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Read to your child or read with your child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do homework with your child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talk with your kids about what they’re doing in school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speak with your children about their interests and outside activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talk with your kids about relationships with friends and classmates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteer in your child’s school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speak with your child about his/her education and future goals</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Part 2: Next I want to ask you about some ideas you have about parenting. I am going to read you a list of sentences. If you agree with the sentence, please answer “agree”. If you disagree, please answer “disagree.”

<table>
<thead>
<tr>
<th>Agree / Disagree</th>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree a little</td>
<td>I believe that a child’s personality and intelligence is there from birth.</td>
</tr>
<tr>
<td>Agree a lot</td>
<td>Parenting “style” does not make much difference as long as children are loved.</td>
</tr>
<tr>
<td>Agree a little</td>
<td>I believe that parenting is a job. Evidence of a job done (dis)agree: well or done poorly can be seen in the actions and characteristics of a child.</td>
</tr>
<tr>
<td>Agree a lot</td>
<td>There are no “bad” children; badly behaved children are actually the result of bad parenting.</td>
</tr>
<tr>
<td>Agree a little</td>
<td>Parents are primarily responsible for how their children turn out.</td>
</tr>
<tr>
<td>Agree a lot</td>
<td>No matter how parents may try, they actually have very (dis)agree: little influence over their children’s temperament, personality traits, and/or intelligence.</td>
</tr>
<tr>
<td>Agree a little</td>
<td>Mothers are held more responsible for how their children turn out than fathers.</td>
</tr>
<tr>
<td>Agree a lot</td>
<td>Fathers are held more responsible for how their children turn out than mothers.</td>
</tr>
</tbody>
</table>

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Part 3: Next I would like to ask you about how you feel about parenting your child. If you agree with the sentence, please answer "agree". If you disagree, please answer "disagree."

**Agree**  **Disagree**  I feel I am good at resolving conflict with my child.
(disagree: a little / a lot)

**Agree**  **Disagree**  I feel I am a positive role model for my child.
(disagree: a little / a lot)

**Agree**  **Disagree**  I wish I could do a better job as a parent.
(disagree: a little / a lot)

**Agree**  **Disagree**  I feel I am a better parent than most other parents.
(disagree: a little / a lot)

**Agree**  **Disagree**  I feel proud of the job I have done as a parent.
(disagree: a little / a lot)

**Agree**  **Disagree**  I often feel unsure of myself.
(disagree: a little / a lot)

**Agree**  **Disagree**  Having children is worth all the sacrifices.
(disagree: a little / a lot)

**Agree**  **Disagree**  I get a great deal of fun and enjoyment from being a (disagree: a lot)
**Agree**  **Disagree**  parent. Raising children is not as rewarding as I thought it would be.
(disagree: a little / a lot)

**Agree**  **Disagree**  In general, as a parent, I am happy most of the time.
(disagree: a little / a lot)

**Agree**  **Disagree**  Children are a large burden for me.
(disagree: a little / a lot)

**Agree**  **Disagree**  Having children to care for is a lot of fun.
(disagree: a little / a lot)

**Agree**  **Disagree**  The rewards of being a parent easily outweigh the effort (disagree: a little / a lot)
and hard work.
(disagree: a little / a lot)

**Agree**  **Disagree**  You know, it’s hard being stuck home with children.
(disagree: a little / a lot)

**Agree**  **Disagree**  Parenthood is the most important aspect of my life.
(disagree: a little / a lot)

Part 4: Next I want to ask you how likely it is that each of the following items will affect a child’s chances of developing ADHD. The answers are on a scale of 1 to 5, 1 being that it definitely will not affect the child and 5 being it definitely will affect the child.

How likely is it that children will develop ADHD if… (1 = not at all, 5 = definitely will)

1 2 3 4 5 they come from a single-parent home?
1 2 3 4 5 the person who takes care of them is not involved at school?
1 2 3 4 5 they come from a home where there is not a lot of discipline?
1 2 3 4 5 the person who takes care of them knows how to raise children?
Part 5: This part asks you about what you think causes ADHD. If you agree with the sentence, please answer ”agree”. If you disagree, please answer ”disagree.”

agree disagree I believe ADHD is caused by what a child eats.
(dis)agree: a little / a lot

agree disagree I believe ADHD is caused by “something inside them.”
(dis)agree: a little / a lot

agree disagree I believe ADHD is caused by something that happens during pregnancy.
(dis)agree: a little / a lot

agree disagree I believe ADHD is caused by children being too stimulated.
(dis)agree: a little / a lot

agree disagree I believe ADHD is caused by parents not paying enough attention to their children.
(dis)agree: a little / a lot

agree disagree I believe ADHD is caused by bad parenting.
(dis)agree: a little / a lot

agree disagree I believe ADHD is genetic.
(dis)agree: a little / a lot

agree disagree I believe ADHD is caused by watching too much television.
(dis)agree: a little / a lot

agree disagree I believe ADHD is caused by smoking or drinking before a child is born.
(dis)agree: a little / a lot

agree disagree I believe ADHD is caused because the world moves too fast nowadays.
(dis)agree: a little / a lot
APPENDIX F

Phase 3: Teacher Consent Form

Teacher Consent Form

You are being asked to be in a research study. This study is called “A Prospective Examination of ADHD (Attention-Deficit Hyperactivity Disorder) Diagnosis Among Elementary School Students.” It is not just a study about children with ADHD. It is a study to understand all children’s behavior. This study is being done by Mrs. Jenelle Doucet. She is being supervised by Professor Kathryn Oths who is a professor of anthropology at the University of Alabama.

What is this study about?
ADHD is a big problem for children in the United States, but scientists do not understand exactly what causes it. This study wants to look at all children in classrooms and in their homes before they are diagnosed with ADHD to see how their families, schools, and community affect the disease process. You are being interviewed because you have some experience with ADHD in your job. The investigator would like to know about your experiences with ADHD here in Lafayette. You will be asked about who you think gets sick and why, what treatments are best, and what can be done to make the situation better for those with ADHD in Lafayette. You will also be asked some of your personal or family characteristics such as age, education, and years of experience in your field..

Why is this study important—What good will the results do?
The findings will help scientists and teachers better understand who gets ADHD. This will help them find people with ADHD and give them better treatment.

Why have I been asked to take part in this study?
You returned a form saying you were interested in participating in the study.

How many other people will be in this study?
The investigator hopes to about 25 teachers over the next few weeks.

What will I be asked to do in this study?
If you agree to be in this study, Mrs. Doucet will interview you at work about your experiences with ADHD. The interviewer would like to record the interview to be sure that all your words are captured accurately. However, if you do not want to be taped, simply tell the interviewer, who will then take handwritten notes.
How much time will I spend being in this study?
The interview should last about 30-45 minutes, depending on how much information about your experiences you choose to share.

Will being in this study cost me anything?
The only cost to you from this study is your time.

Will I be compensated for being in this study?
In appreciation of your time, you will receive a $20 gift card when the interview is completed.

What are the risks (problems or dangers) from being in this study?
The chief risk to you is that you may find the discussion of your experiences to be sad or stressful. You can control this possibility by not being in the study, by refusing to answer a particular question, or by not telling us things you find to be sad or stressful.

What are the benefits of being in this study?
There are no direct benefits to you unless you find it pleasant or helpful to describe your experiences with ADHD. You may also feel good about knowing that you have helped scientists and teachers understand ADHD better.

How will my privacy be protected?
You are free to decide where we will visit you so we can talk without being overheard.

How will my confidentiality be protected?
The only place where your name appears in connection with this study is on this informed consent. The consent forms will be kept in a locked file drawer in Mrs. Doucet’s home, which is locked when she is not there. When I record the interview, I will not use your name, so no one will know who you are on the tape. Once back in my office, I will type out the interview. When the interviews have been typed, the recordings will be destroyed. This should occur within one month of the interview. You may also refuse to be recorded, in which case Mrs. Doucet will take handwritten notes.

I will write research articles on this study but participants will be identified by names randomly given to them. No one will be able to recognize you.

What are the alternatives to being in this study?
The only alternative is not to participate.

What are my rights as a participant?
Being in this study is totally voluntary. It is your free choice. You may choose not to be in it at all. If you start the study, you can stop at any time. You will still receive the gift card even if you stop the interview. Not participating or stopping participation will have no effect on your relationships with the University of Alabama.

The University of Alabama Institutional Review Board is a committee that looks out for the ethical treatment of people in research studies. They may review the study records if they wish.
This is to be sure that people in research studies are being treated fairly and that the study is being carried out as planned.

**Who do I call if I have questions or problems?**
If you have questions about this study right now, please ask them. If you have questions later on, please call Mrs. Doucet at 662-801-1015. If you have questions or complaints about your rights as a research participant, call Ms. Tanta Myles, the Research Compliance Officer of the University at 205-348-8461.
You may also ask questions, make a suggestion, or file complaints and concerns through the IRB Outreach Website at http://osp.ua.edu/site/PRCO_Welcome.html. After you participate, you are encouraged to complete the survey for research participants that is online there, or you may ask Mrs. Doucet for a copy of it. You may also e-mail us at participantoutreach@bama.ua.edu.

I have read this consent form. I have had a chance to ask questions.

<table>
<thead>
<tr>
<th>Signature of Research Participant</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature of Investigator</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
APPENDIX G

Phase 3: Teacher Interview Schedule

ID __________

Part 1: Demographics
Age: ________
Gender: Male Female
How many years have you been teaching? ________
Do you currently have a student in your class with a disability? Yes No
Do you currently have a student with ADHD in your class? Yes No

Part 2: Below I have a list of behaviors. What I would like for you to do is tell me how often you think students in your class who do not have ADD or ADHD should be able to do each of them. The answers are on a scale of 1 to 5, 1 being that a child should never be able or expected to do the activity and 5 being a child should always be able or expected to do it.

How often should a child be able or expected to...

Do school and homework without making careless mistakes?
1 2 3 4 5
Stay focused on an activity or task
1 2 3 4 5
Listen when spoken to
1 2 3 4 5
Finish his/her school work
1 2 3 4 5
Be organized tasks or activities
1 2 3 4 5
Sit and do an activity that may be boring
1 2 3 4 5
Keep track of things needed for school like books or school assignments
1 2 3 4 5
Pay attention without getting distracted
1 2 3 4 5
Remember to do daily activities like brushing teeth
1 2 3 4 5
Sit still without fidgeting
1 2 3 4 5
<table>
<thead>
<tr>
<th>Behavior</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do what he or she is told by the teacher</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Be hyper</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Play games or do activities quietly</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Be ‘always on the go’</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Talk too much</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Blurs out answers to questions</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Be impatient</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>To interrupt a conversation</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Play outside</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Act out</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

**Part 3: Classroom Setting**

Can you walk me through what a typical school day is like in your classroom?

What are your biggest problems or challenges as a teacher?

How is your classroom different from some of the other classes here at school?

Which rules are most important for the children to follow in your classroom?
Can you describe a typical K/1\textsuperscript{st}/2\textsuperscript{nd} grader to me?

**Part 4: ADHD**

Can you tell me what you know about ADHD? (signs and symptoms, treatments, causes)

Do you think it is more common among some groups of children than others?

Do you think ADHD is more common among some types of families than others?

**Part 5:** Next, I am going to read you a few statements about what your job is like. If you agree with the sentence, please answer “agree”. If you disagree, please answer “disagree”.

I have constant time pressure due to a heavy work load.

- Agree
- Disagree

I receive the respect I deserve from my superiors.

- Agree
- Disagree

I have experienced or I expect to experience an undesirable change in my work situation.

- Agree
- Disagree

People close to me say I sacrifice too much for my job.

- Agree
- Disagree

Considering all my efforts and achievements, my salary/income is adequate.

- Agree
- Disagree

I have many interruptions and disturbances in my job.

- Agree
- Disagree
My current occupational position adequately reflects my education and training.
| Agree | Disagree | (disagree) a little / a lot |

I experience adequate support in difficult situations.
| Agree | Disagree | (disagree) a little / a lot |

I have a lot of responsibility in my job.
| Agree | Disagree | (disagree) a little / a lot |

Work rarely lets me go, it is still on my mind when I go to bed.
| Agree | Disagree | (disagree) a little / a lot |

Considering all my efforts and achievements, my work prospects are adequate.
| Agree | Disagree | (disagree) a little / a lot |

If I postpone something that I was supposed to do today I’ll have trouble sleeping at night.
| Agree | Disagree | (disagree) a little / a lot |

I receive the respect I deserve from my colleagues.
| Agree | Disagree | (disagree) a little / a lot |

My job security is poor.
| Agree | Disagree | (disagree) a little / a lot |

I am often pressured to work overtime.
| Agree | Disagree | (disagree) a little / a lot |

Over the past few years, my job has become more and more demanding.
| Agree | Disagree | (disagree) a little / a lot |

My job is physically demanding.
| Agree | Disagree | (disagree) a little / a lot |

When I get home, I can easily relax and ‘switch off’ work.
| Agree | Disagree | (disagree) a little / a lot |

I am treated unfairly at work.
| Agree | Disagree | (disagree) a little / a lot |

Considering all my efforts and achievements, I receive the respect and prestige I deserve at work.
| Agree | Disagree | (disagree) a little / a lot |

As soon as I get up in the morning I start thinking about work problems.
| Agree | Disagree | (disagree) a little / a lot |

My job promotion prospects are poor.
| Agree | Disagree | (disagree) a little / a lot |

I get easily overwhelmed by time pressures at work.
| Agree | Disagree | (disagree) a little / a lot |

**Part 6:** Next, I am going to read you a few statements about teaching children with disabilities. If you agree with the sentence, please answer "agree". If you disagree, please answer "disagree".

I have access to support services at school to help me teach children with disabilities.
| Agree | Disagree | (dis)agree a little / a lot |

I do not have enough class time to teach students with disabilities.
| Agree | Disagree | (dis)agree a little / a lot |

I think I can identify children who have a disability.
| Agree | Disagree | (dis)agree a little / a lot |
Having more inservice training on the needs of students with disabilities would not be helpful to me.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little / a lot</th>
</tr>
</thead>
</table>

I have enough access to teaching materials designed for disabled children.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little / a lot</th>
</tr>
</thead>
</table>

I have enough time to prepare special instructions or activities for students with disabilities.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little / a lot</th>
</tr>
</thead>
</table>

There is a need for more support services for disabled children at my school.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little / a lot</th>
</tr>
</thead>
</table>

I have the skills as a teacher to teach students with disabilities.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little / a lot</th>
</tr>
</thead>
</table>

I believe I can adapt my current lesson plans to teach disabled children.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little / a lot</th>
</tr>
</thead>
</table>

I am not confident I could locate extra teaching materials for disabled children.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little / a lot</th>
</tr>
</thead>
</table>

I feel as though I need additional training to teach the students with disabilities in my classroom.

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
<th>(dis)agree a little / a lot</th>
</tr>
</thead>
</table>
APPENDIX H

Phase 2: Teacher Evaluation Part 2

Child’s Name ____________________________________________

Below is a list of questions about the child’s home life and how involved his or her parents are at school. Please fill out each of the questions to the best of your abilities. For each question, you will have five (5) choices.

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>How supportive is the parent/guardian of the child?</td>
<td></td>
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</tr>
<tr>
<td>How supportive is the parent/guardian of you, the teacher?</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>How often do the child’s parents/guardians help with homework?</td>
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</tr>
<tr>
<td>How often do the child’s parents/guardians come to school functions?</td>
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<td></td>
</tr>
<tr>
<td>How involved is the child’s mother in his or her life?</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How involved is the child’s father in his or her life?</td>
<td></td>
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<tr>
<td>Is someone other than the child’s mother or father involved in the child’s life?</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Who is this person?</td>
<td></td>
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<tr>
<td>How involved is this person in the child’s life?</td>
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<tr>
<td>How much structure does the child have at home?</td>
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<tr>
<td>How much routine does the child have at home?</td>
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<tr>
<td>How much discipline does the child receive at home?</td>
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<tr>
<td>How much negativity is there in the child’s home?</td>
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<tr>
<td>How stable is the child’s home?</td>
<td></td>
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</tr>
</tbody>
</table>
May 20, 2010

Jenelle Doucet  
Department of Anthropology  
College of Arts & Sciences  
The University of Alabama  

Re: IRB # 10-OR-162 “A Prospective Examination of ADHD Diagnosis among Elementary School Students”

Dear Ms. Doucet:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on May 18, 2011. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure Form. If you wish to modify the application, complete the Modification of an Approved Protocol Form. When the study closes, complete the appropriate portions of FORM: Continuing Review and Closure.

Please use reproductions of the IRB approved informed consent form to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.