May 2020

Time, Schedules, and the College Student with ADHD

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ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) is a complex, heterogeneous condition associated with organizational and time management challenges that can impact academic performance. Using information gathered through texts and 28 semi structured, in-depth interviews, I explored the everyday lived experiences of college students diagnosed with ADHD as they worked to adhere to the schedule and time expectations of their college coursework. I also the explored institutional policies and processes of the community college they attended to determine if, and how, these impacted the work of adherence.

Using institutional ethnography and Liza McCoy's three-way alignment model as frameworks, this qualitative, ethnographic study examined the responses and data from 14 community college students diagnosed with ADHD and two staff members in the Office of Disability Services. Student participants were enrolled in college credit courses and had registered for accommodations with the Office of Disability Services.

The findings suggest that adhering to the expectations of college course work involved a three-way alignment between the schedule, the student's inner experience of time, and clock time. Every student experienced some degree of disconnect between their inner experience of time and awareness of clock time, causing them distress and leading to problems adhering to the schedule. The components of the three-way alignment interacted with and influenced the executive functions of attention, focus, and memory in complex ways. The work of maintaining the alignment was unrelenting, and the students were not always successful. They had to perform additional work above and beyond that expected of their coursework just to maintain the alignment and adhere to the schedule.

The students used various accommodations, strategies, and tools to maintain the alignment. None proved consistently useful over time and all added another layer of burdensome work. Only half the students used accommodations provided through the Office of Disability Services. For those who used them, the accommodations were not always helpful. Time management and organizational strategies designed to decrease effort and increase productivity often caused more work for the students and were rarely effective. Deadlines, stress, procrastination, volition, and resistance influenced adherence to the schedule. Some behaviors commonly associated with non-adherence were instead purposeful self-protective strategies the students enlisted when forced to call up abilities they did not have or could not consistently sustain. Some students developed their own organizational strategies. Traditionally, professional "experts" have driven the historic and contemporary narratives of people with ADHD. I contend that, as researchers, we have not often consulted the *real* experts who live these experiences every day. I offer that a true interdisciplinary effort must include people with ADHD in order to develop strategies better suited to their needs.

TIME, SCHEDULES, AND THE COLLEGE STUDENT WITH ADHD

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B.S., Clayton State University, 2003
M.A., University of West Georgia, Sociology, 2006

Dissertation

Submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Sociology

Syracuse University
May 2020

ACKNOWLEDGEMENTS

I want to thank my mother, Jan, for her support and encouragement. Without our countless brainstorming sessions, this project would have been very different. Having a personal proofreader was nice, so I must thank my wife, Sarah. Every time we thought we made it out, the typos and poor word choices pulled us back in! Thanks also to my English mum, Marg. Thanks to my father, Neftali, and everybody in the Rodriguez, Bauza, Cruzado, and Fuertes collectives, those gone and still with us. The McClure family: well, it is only two of us left, so mom gets a well-deserved second shout out. Thanks to the Kyrklund, Jones, and Ruiz side of the family. Thanks to the Gorski and Beatty clan who are my family from another gene pool.

Academically, anyone who ever had the patience to teach me deserves to be recognized. From my years at the University of West Georgia, I want to thank Dr. Mark LaFountain for helping me regain my love for sociology as a discipline. Dr. Laurel Holland, thank you showing me how awesome a teacher could be as well as introducing me to Baudrillard and many other mind melding theorists. A special recognition goes to Dr. Paul Luken for introducing me to Institutional Ethnography, chairing my master's thesis, and offering his support, advice and friendship. At Syracuse University, a special thank you to Dr. Andrew London for helping me pull all of this into something cohesive, as well as vouching for me (I am sure numerous times) when others probably assumed that I would never finish this. Thank you, Dr. Marg DeVault, for all the support, academic and otherwise. Having the chance to work with you was the main reason I chose Syracuse University. I found myself in a frigid land far away from home, but your warmth always made home feel a little closer. Also, thanks for the cutlery! Thank you, Dr. Madonna Harrington-Meyer, for your support and your standards. I am not sure how, but I think you saw potential in me when I might not have seen it myself. I felt that pressure, and it pushed

me in a good direction. Dr. Jackie Orr, I feel like we know each other so well, and not at all, but who has time for such artificial binaries these days? Your classes and methods encouraged me to break through boundaries without entirely destroying them in the process. Dr. Amy Lutz, despite not crossing paths much during my time in Syracuse, I appreciate that you took an interest in my research, providing valuable insight and direction. Thanks to Dr. Antshel for chairing my defense. Having an expert on the subject was a pleasant surprise. To Dorothy Smith and Liza McCoy, I offer sincere appreciation for inspiring my work and providing the study's theoretical foundation. A special thanks to Janet, Kathleen, and Tara for all the headaches I have caused you and for keeping the department functioning. Finally, I cannot forget to thank my cohorts who made graduate school gratifying. The many late nights and cookies paid off.

Most importantly, many thanks to everybody who participated in this study. The coordinators provided a wealth of access, information, and transparency that they certainly did not owe me. To the student participants, this would not have happened without you. From talking to you about your trials and triumphs, I learned much about myself and my own journey in education and beyond. I hope that if or when you all read this, you feel that your voices were heard. If not, then this was for nothing. You all are the best.

Special treats to Mollie Ball, Big Kitty, Bandito aka Little Kitty, Pepper, Baby Cakes, Chiyo, Strange Range, King Beasley, Lean Peanut, and Big Figi for your dander, whining, and unflinching support. Your paw prints are all over my success, literally, and often.

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CHAPTER 1

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a complex, heterogeneous condition associated with diverse neurocognitive and psychosocial challenges that often impact academic performance. Research findings support differences in time perception among children and adults with ADHD (Zakay 1990; Barkley et al. 2001; Toplak & Tannock, 2005; Carelli and Wiberg 2012), leading to organizational and time management difficulties. The current structure of the U.S. educational system requires adherence to a schedule on many levels, with significant consequences for non-adherence. Informed by institutional ethnography, and referencing in-depth interviews with college students diagnosed with ADHD and disability services personnel at a two-year community college, I explored the lived experiences of students with ADHD as they do the "work of adherence" to a schedule of college expectations and examine how that work is connected to and organized by a larger web of institutional policies, activities, and texts. In doing so, I sought to answer the following research questions:

1. What are the everyday work practices of college students diagnosed with ADHD as they strive to adhere to the schedule and time expectations of college coursework?
2. How is this work linked to the processes and activities of the college and other extra local sites of action that influence and are influenced by the local participants?

BACKGROUND

Attention Deficit Hyperactivity Disorder is a social construct with a history rooted in culture, medicine, and sociopolitical power systems. From pediatrician George Still's description of Fidgety Philip in the early 20th century, to the modern day image of a child who cannot sit

still, ADHD has evolved from a moral defect to a brain dysfunction to a neurodevelopmental disorder (Lange et al. 2010). Even today, there is little consensus in the medical, psychological, educational, or sociological communities about what ADHD is, what causes it, or if it is a valid diagnosis. The dominant discourse describes ADHD as a mental/behavioral disorder with biological and genetic underpinnings (Hinshaw and Scheffler 2014). A common thread running through the biological and psychological models is that the problem lies with the individual, absolving educators, health care providers, and other social institutions of responsibility. Sociologists are more likely to see ADHD as a social construct and a product of medicalization (Conrad 2012). It is a way to control children and adults whose behavior falls outside of the norm and is therefore considered deviant (Brock 2010). Others see it as a for-profit invention that pathologizes normal behaviors of childhood (Baughman 1999; Carey 2002; Conrad and Potter 2000). Each of these perspectives has a strong and vocal following. However, whether ADHD is a disorder that can and should be treated like any other medical condition, or a socially constructed category of questionable merit, the onus is on the person diagnosed with ADHD to conform. The voices of those who live with ADHD are sorely under-represented in the conversation.

Research suggests that people who have ADHD experience time differently than those who do not. These differences may be insignificant outside of the context of postmodern industrialized society. However, contemporary western life is coordinated temporally (Zerubavel 1982). The differences become deficiencies when they interfere with social roles and expectations, leaving individuals with ADHD at a disadvantage when performing activities that require an awareness of time and adherence to a schedule. The biomedical model of ADHD explains these differences as cognitive deficits in executive functioning (Barkley 2012;

Biederman et al. 2009, Brown 2013; Willcutt et al. 2005). Time studies related to ADHD focus on alterations in brain neurophysiology and the resulting pathology (Barkley 2001; Howard 2011; Prevatt et al. 2001). While not discounting the impact of these biological differences, I was more interested in exploring how they affected people with ADHD in their daily lives.

THEORETICAL AND CONCEPTUAL FRAMEWORKS

The following theoretical and conceptual frameworks informed my research: (1) Dorothy Smith's *The Social Organization of Knowledge/Institutional Ethnography*, and (2) Liza McCoy's *Three-way Alignment and The Work of Adherence*. Each is briefly described below and will be incorporated into the remaining chapters of this dissertation.

Institutional Ethnography

As a researcher, I have been strongly influenced by the theoretical perspectives and methods of doing research offered by institutional ethnography. Developed by sociologist Dorothy Smith, institutional ethnography provides an approach to the study of social relations and the institutions that structure our everyday lives. While this dissertation is not an institutional ethnography in the strictest methodological sense, its theoretical viewpoints and methods of doing research informed the development and implementation of this study.

Theoretically, institutional ethnography supported the following assumptions important to my research: (1) investigation begins with "the standpoint of actual individuals located in the everyday world" (Smith 1987:159); (2) everyday experiences are organized by the activities of people (DeVault and McCoy 2002); (3) people are competent knowers of the work they do on a daily basis (Smith 2005); and (4) "work knowledge" includes the person's experience of work and the coordination of this work with the work of others (Smith 2005:151).

Institutional ethnography looks at the world outside of the dominant social discourse. This makes it a useful tool for addressing issues surrounding marginalized individuals or groups who surrender their own lived experiences in favor of an abstract understanding of their situation. Their knowledge is then controlled by others who more directly influence the accepted discourses (Grahame 1998; Grahame and Grahame 2001). I argue that students with ADHD accept the current discourse, largely without question. My study participants assumed the language of the biomedical model, which was reinforced by the social institutions designed to help them.

Methodologically, Institutional Ethnography supported my decision to use interviews and textual analysis. DeVault and McCoy (2002) described ways a researcher can use interviews in an institutional setting. The first is to look at the everyday work practices of people and how these experiences are shaped by forces outside of their local histories. In this study, I used interviews to examine the everyday work practices of college students with ADHD. Another is to examine frontline organizational work by interviewing persons who have access to information about the structural and administrative processes of an institution. In this study, I interviewed two disability services staff and three faculty members. To a limited extent, I also used textual analysis. Texts are, "forms that externalize social consciousness in social practices, objectifying reasoning, knowledge, memory, decision-making, judgment, evaluation, etc., as properties of formal organization or discourse rather than as properties of individuals" (Smith 1990:211). DeVault and McCoy (2002:767) explain that an institutional ethnographer examines: (1) how the text comes to the informant and where it goes from there; (2) what the informant needs to know in order to determine what to do with the text; (3) what the informant does as a result of the text; (4) the relationship of the text to other texts and textual processes as sources of information; and

(5) the conceptual schema that provides structure to the text and allows for competent reading. The primary texts in my researcher were the policies, procedures, and forms of the Office of Disability Services.

The Three-way Alignment and Work of Adherence

Time and schedules are inextricably linked. Adherence to a schedule is a type of "time work." Liza McCoy (2009:128) found that there was a three-way alignment between the inner experience of time, standard clock time, and the medication schedule of people taking daily HIV drugs. She showed that the time and emotional work of medication adherence was complex and required a form of self-work "including self-examination and self-adjustment, as the participants developed strategies for *doing* adherence." I was struck by the analogies between the "everyday work of adherence" confronted by McCoy's study participants as they adjusted to the demands of retroviral therapy and how individuals with Attention Deficit Hyperactivity Disorder attempt to carry out the demands of everyday life. Although McCoy's study participants and mine faced different life challenges, both groups struggled to function within a prescribed schedule of activities involving a distinctive type of high stakes work related to issues of time and adherence. McCoy's study, also informed by institutional ethnography, proved invaluable as I envisioned and carried out this research.

The work of adherence, whether to a schedule of pill taking as in McCoy's research, or to the requirements of college course work in this study, requires a three-way alignment between the schedule, a person's inner experience of time, and clock time. Maintaining the three-way alignment requires attention, focus, and memory. Biomedical/psych research has consistently shown differences with these three characteristics in individuals diagnosed with ADHD. I show that the components of the three-way alignment and attention, focus, and memory interacted and

influenced each other in complex ways. The work of maintaining the alignment was unrelenting, and the students were not always successful. They had to perform additional work above and beyond that expected of their assignments just to maintain the alignment and adhere to the schedule. The extra work of compensating for their challenges with attention, focus, and memory further impaired the students' ability to use these three cognitive functions effectively.

The students used various accommodations, strategies, and tools to maintain the alignment. None proved consistently useful over time and all added another layer of burdensome work. Sometimes, the cumulative work of maintaining the alignment and adhering to the schedule was too difficult and the student lost the will to do the work, often with active resistance. While these actions may appear deviant, I argue that they are self-protective. The students were being forced out of their comfort zones and had to summon abilities they did not have or could not consistently sustain without exhausting and emotionally draining effort. Viewed this way, I see their actions as *strategies* developed in response to the anticipated mental and emotional strain of placing themselves in an unnatural state.

Researchers focus on why students with ADHD struggle, or look for ways to treat them. I chose to explore what the struggle looked like. Institutional ethnography and McCoy's three-way alignment model provided valuable frameworks for addressing the research questions.

MY POSITION AS A RESEARCHER

My interest in this subject is both personal and academic. In order to situate myself in this academic pursuit, I will share a brief description of events that led to my interest in studying ADHD. I was diagnosed with ADHD in my first year of graduate school by the Office of Disability Services at the university I was attending. I had been previously evaluated as a child

but failed to meet the official criteria for a diagnosis of ADHD. Instead, I was labeled an underachiever.

Being diagnosed as a graduate student majoring in psychology gave me an interesting perspective. Upon diagnosis, I explored the topic of ADHD as an individual, a student, and a researcher. I initially embraced the biomedical/psych models and treatments. I welcomed an explanation for the challenges that had plagued my educational experiences to that point. The year following my diagnosis was confusing as I worked through what it meant to "have" ADHD and what I thought about the diagnosis as an academic. I noted the positions of many proponents and critics of the diagnosis. Although I can now see the relative merits of all points of view, I initially had trouble situating myself in this artificial binary when it came to my own history and my research interests.

In the second year of graduate school, I changed my major to sociology and was exposed to new ways of looking at the discourse surrounding ADHD. I became interested in feminist methodologies and the work of Dorothy Smith. My master's thesis, "Diagnosing Attention Deficit Disorder: An Institutional Ethnography" solidified my research interest in the subject of ADHD and my appreciation for institutional ethnography as a theoretical and methodological framework. I pursued my interest in ADHD and institutional ethnography throughout my doctoral studies at Syracuse University, culminating in this dissertation.

Throughout the course of my graduate studies, I also learned that there is a place for the researcher's own subjectivity. Traditionally, a researcher's background and identity were considered a potential source of bias to be eliminated or tightly controlled. More recently, the incorporation of "experiential data" has gained acceptance (Straus 1987). The researcher's personal experiences and motivations can provide a valuable source of insight into the

phenomenon being studied (Edwards and Holland 2013; Marshall and Rossman 1999; Maxwell 2012). All researchers are socially positioned, bringing histories, assumptions, and prior knowledge to the research process. While it was not possible or necessary to entirely discount my personal motives and experiences in the name of objectivity, I know that researchers must "be cognizant of the choices that we make and to share these choices with readers" (Fine 1993:268). I share some of those decisions below.

I shared my diagnosis of ADHD with the study participants, but with minimal self-disclosure. This appeared to put them at ease and afforded me a level of acceptance and trust that might have taken longer to build otherwise. Because the students believed I could relate to them, they were eager to share their experiences. During the interviews, I often felt that I understood what the students were saying, even when they struggled to convey their thoughts. This enabled me to seek clarification and to ask follow-up questions that might have been missed by a different interviewer. Still, I did not assume a unified experience among all those with an ADHD diagnosis, thereby ignoring the differences.

While my background served in positive ways to build rapport and increase understanding, I knew it could also color my interpretation of the material. Acknowledging this, I took several precautions to avoid biasing the results. First, I wrote open-ended questions that would not lead the participants toward specific answers. Second, I practiced reflexivity during each stage of the research, consciously reminding myself to look at the information objectively. I did this by looking for patterns in the data and allowing those observations to direct my interpretation and analysis.

IMPORTANCE OF THE STUDY

There are significant personal and social consequences associated with ADHD. Those diagnosed with ADHD have a higher incidence of unstable relationships, divorce, academic difficulty, and criminal behavior compared to the general population. As employees, adults with ADHD are more likely to suffer from chronic absenteeism and tardiness (Wasserstein, et al. 2001). They also have significantly lower job success and are fired from more jobs due to performance issues related to their symptoms (Adamou et al. 2013; Barkley et al. 2006; Shifrin, Proctor, and Prevatt 2010). Anxiety, depression, and interpersonal difficulties contribute to impaired life satisfaction (Safren et al. 2010). An ADHD diagnosis is associated with poorer health outcomes, including an increased risk of injury, physical disorders, psychological distress, and functional limitations (Landes and London 2018). Students with ADHD have lower grade point averages, are more likely to experience academic problems, be put on academic probation, and to drop out of college (Blasé et al. 2009; Heiligenstein, Guenther, and Levy 1999; Kurien et al. 2014; Steinberg 1998). If the individual cost is not high enough, the cost to the U.S. economy has been estimated at between 143 to 266 billion per year (Doshi et al. 2012).

Although research on adult students with ADHD has increased in recent years, it primarily originates out of the fields of medicine, education and psychology. There is comparatively little sociological research dedicated to ADHD, and even less involving adult students with ADHD. Sociologists have examined issues surrounding mental disorders (Becker 1973; Conrad 2005; Friedson 1970; Karp 1999; Laing 1963; Link 1987; Scheff 1982), with fewer directly addressing ADHD (Rafalovich 2013; Conrad and Potter 2000). With the diagnosis of ADHD at an all-time high in the United States, it must be recognized as having considerable social impact (Hinshaw and Scheffler 2014). Rafalovich (2001; 2005; 2013) criticizes sociology

for having virtually ignored ADHD as a topic of interest with "very real repercussions." About ADHD, he suggests that: "The violation of certain institutional frameworks–the school, the family, the economy, and so on–are invariably implied in such diagnoses" (Rafalovich 2001:94). London and Landes (2019) argue in support of including a sociological perspective in ADHD research. They emphasize the important public health policy and research implications of adult ADHD.

Scholars chronicle the many ways in which people with ADHD fail to comply with social expectations, focusing on why they do or do not, or what can be done to help them conform. Nowhere is this more evident than in education. Researchers develop surveys to test for ADHD, administer MRI's and PET scans to identify abnormal areas of the brain, and search for the next best medication. They document the deficits seen with ADHD and write self-help books. Students are awarded accommodations that often do not meet their needs. The prescribed treatments and tools frequently fail because they require abilities that the person with ADHD may not have or cannot access in a sustained way. Less attention is paid to the experience of individuals as they try to do the work of adherence while living with ADHD.

Make no mistake, people with ADHD do try. They try medication. They try therapy. They try self-help. They try to meet expectations. They try to adhere to schedules. They try to be on time. Every morning, they get up and try again. It is unrelenting and exhausting work. In this dissertation, I sought to understand what people were doing while trying, thereby contributing a unique perspective to the sociology of ADHD.

SUMMARY AND CHAPTER OVERVIEW

In this chapter, I presented background information related to my research, discussed its purpose and importance, and described the conceptual frameworks that informed this study. In

the next chapter, I present a review of relevant literature on ADHD. In Chapter 3, I discuss how I conducted the research, including the research site, recruitment of participants, criteria for participation, data collection methods, data analysis procedures, and a description of the student participants. Chapters 4-6 are the data analysis chapters. In Chapter 4, I discuss how the student participants experienced time and worked to maintain a three-way alignment between the schedule, inner experience of time, and clock time. I include a discussion of how the alignment breaks down due to differences in attention, memory, and focus associated with ADHD. In Chapter 5, I examine strategies used by the students to maintain the three-way alignment, including a discussion of the Office of Disability Services and the accommodations it provided. Chapter 6 explores the challenges of getting the work done despite the students' efforts to adhere. In Chapter 7, I summarize and reflect on the results, consider possible application of the findings, and recommend avenues for further exploration.

CHAPTER 2

Review of the Literature

A review of the literature from the past 25 years shows a predominance of quantitative studies related to the cause, prevalence, diagnostic criteria, functional outcomes, and treatment of adult ADHD. There is relatively little sociological research specifically dedicated to ADHD, however a discussion of this subject must include its sociological underpinnings. The topics presented in this review ground my research in sociological theory and locate it within the contemporary discourses on ADHD. Theory and research in sociology, medicine, psychology, and education contribute to a multi-dimensional understanding of ADHD. This review of the literature will begin with an examination of where ADHD is situated in sociological theory, the sociology of mental health and illness, and medical sociology. I then present an overview and brief history of ADHD, followed by literature on the cause, diagnosis, treatment, and classification of ADHD with special consideration of the adult and college student populations. The chapter concludes with a discussion of literature related to executive functioning and time as they relate to ADHD.

THE SOCIOLOGY OF ADHD

Medicalizing ADHD

Medicalization involves taking what was once considered a nonmedical problem, behavior, or normal process of life and redefining it in biomedical terms. This process changes the fundamental way that the behavior is understood and addressed (Nguyen and Cantor 2006). A medical diagnosis can transform something from an unconnected, ambiguous group of symptoms to an organized illness (Conrad and Potter 2000). An interplay of education, academia, health care, and governmental agencies have contributed to the medicalization of ADHD

(Conrad and Potter 2000). Sociologists have described and often criticized medicalization, contributing to an understanding of the trajectory of ADHD as a medical/mental illness (Light 2000; Zola 1994; Bury 2000; Friedson 1970).

Conrad and Schneider (1992) address the degrees, ranges, and consequences of medicalization. Some disorders have been almost entirely medicalized, some partially, and others minimally. Some disorders, like ADHD, are almost exclusively Western conceptions. Others, such as alcoholism, are acknowledged on a more global scale. While a common diagnosis in the United States, ADHD is diagnosed much less often in other countries, including those with modernized health care systems.

The social construction of illness is embedded with cultural significance and meaning Conrad and Barker (2010). A sociological exploration supports ADHD as being a socially constructed and highly medicalized disorder. The imposition of mandatory education for all children was an early contributor to the medicalization of what was once considered unruly, or perhaps even normal behavior in children. Western educational institutions foster and reward conformity, efficiency, and order. Educational authorities called upon the medical community to identify and treat children who did not fit into the structure of the "typical" school environment (Brancaccio 2000).

In the 1960s, pharmaceutical companies began promoting amphetamines as a treatment for hyperkinesis in children. The companies had a vested interest in promoting the medicalization of ADHD in children. These same companies later benefitted from making ADHD a lifetime disorder instead of a disorder of childhood. The almost universal acceptance of the biomedical model of mental illness and the rise of managed care fueled the growth of the pharmaceutical industry resulting in a dramatic increase in the diagnosis of ADHD (Conrad and Potter 2000).

Managed care also affected the medicalization of mental disorders by reimbursing for disorders treatable by medication, restricting access to psychotherapy, and shifting the treatment of ADHD from psychiatrists to primary care physicians (Nguyen and Guillermo 2006).

Organizational stakeholders have promoted the medicalization of ADHD in children and adults. These include advocacy groups such as ChADD (Children and Adults with Attention Deficit Disorder), an organization that owes much of its growth to the expansion of ADHD in adulthood. Ciba-Geigy, the drug company that manufactures Ritalin, offers significant financial assistance to ChADD. (Nguyen and Guillermo 2006). While doctors are still the primary gatekeepers for medical treatment, commercial and market interests are driving the expansion or contraction of medicalization (Conrad 2005). In *ADHD Nation*, Alan Schwarz (2016) investigates the link between pharmaceutical companies, ADHD research, and academic institutions. He claims that ADHD research has been hijacked by the pharmaceutical companies by subsidizing the salaries, travel, and continuing education for ADHD researchers, especially in the medical/psychiatric arenas. In a *Scientific American* interview, Schwarz says:

> All these study findings were founded in small pieces of truth, yes, but they were unconscionably exaggerated specifically to scare doctors and parents into diagnosing and medicating children without much regard to how their problems might not derive from ADHD, but something else, something more complicated, and something worthy of a hell of a lot more attention and treatment than daily amphetamine pills. This was all orchestrated behind the sheen of academic institutions—it's easy to get away with it when the doctors performing the studies have affiliations at Harvard, Johns Hopkins and Cal, with only tiny print indicating that their work was subsidized by the drug makers and rewarded with consulting and speaking contracts (Cook 2016: para. 7)

This connection to the drug companies and other medical interests is evident in the conflict of interest statements included in published research. In a recent article with ten authors, all but one reported potential conflicts of interest.

Psychologist Bob Murray PhD (2004) reported a 600% increase in the diagnosis of ADHD between 1990 and 2004. He cited studies which suggest that, although a small percentage of children diagnosed with ADHD truly have some type of neurological deficit, in most cases, the problem is environmental, relating to the demands put upon children in contemporary society. For example, children often have very little time to be physically active. Citing a study that found a direct correlation between the diagnosis of ADHD and physical restrictions placed on children, Murray argues that requiring children to sit for long periods of time goes against our evolutionary heritage. Carey (2000) concurs, arguing that our brains have not caught up with the requirements of the increasingly artificial environment in which we live. Carey calls "hyperactive" individuals "response ready" (p. 15). These responses would have made an individual with ADHD highly adapted to life in the U.S. as recently as 100 years ago.

Regarding the consequences of medicalization, sociologists tend to emphasize the negative, and clearly there is a dark side. Especially in the current electronic age, a diagnosis follows a person for a lifetime. People are denied health and life insurance based on a history of mental illness. Opportunities for advancement in the workplace may be restricted. Children are placed on powerful and addictive drugs during critical developmental stages and potentially for life. However, medicalization can also destigmatize and legitimize a disorder, offering a medical explanation for what is otherwise seen as a character flaw.

Stigmatization. Once a person is labeled "mentally ill" or stigmatized in some way, they embark on a 'moral career' where the stigma/label becomes a core identity. Stigma is the mark of shame or failure leading to a tainting of the self in the eyes of others (Goffman 1963; Scrambler 2001). Embarrassment, skepticism, and the fear of being labeled and or discriminated against can be a deterrent to someone who needs help but may not seek it (Wasserstein et al. 2001). Canu

and associates (2008) found that subtle, negative biases toward ADHD contributed to rejection of individuals with the disorder, particularly in academic and work settings. They found that community college students who were not diagnosed with ADHD showed significantly less desire to engage with individuals with ADHD.

Some mental disorders cannot be hidden from public view and others can. Because the symptoms of ADHD overlap with other disorders and are also variations of normal traits found in the overall population, ADHD, especially in adulthood, is something that can often be kept hidden. That does not mean there is no stigma associated with adult ADHD. A concealable stigmatized identity is an identity that can be kept hidden from others but that carries social devaluation with it (Crocker, Major, &Steele 1998). The degree of anticipated stigma, or the fear of what others will think if they find out, may outweigh the benefits of acknowledging the disorder publicly. Quinn and Chaudoir (2009) found that people with high anticipatory stigma reported a high degree of salience (the degree to which one thinks about and is aware of the stigmatized identity) and centrality (how critical the illness identity is to one's self-definition). These, in turn, caused psychological distress and an increase in the illness symptoms.

Lundberg and associates (2009) found that enacted stigma (directly experienced social rejection) and felt stigma (the fear of encountering enacted stigma experiences) were negatively associated with self-esteem, empowerment and sense of coherence, defined as the extent to which one has a pervasive, enduring feeling of confidence that the environment is predictable and that things will work out as reasonably as can be expected. Koro-Ljungberg et al. (2009) view ADHD as an "invisible disability." They found that social encounters vary in the amount of disclosure required, but that significant amounts of time and resources are invested in managing the stigma associated with ADHD.

A final thought on ADHD and stigma warrants consideration. Pescosolido and Martin (2007) maintain that continued research on stigma is important to the field of medical sociology and call for a creative and integrative approach. A person labeled mentally ill is stigmatized based on "stereotypical" perceptions of that disorder which are often exaggerated and are almost exclusively negative. Typically, the non-affected individual cannot relate to or identify with the stigmatized person's experience. This is different with ADHD. Almost everyone can identify with it and often do. It is not uncommon to hear someone say, "I am having an ADD moment." The medicalization of ADHD can be viewed in a more positive light to the extent that it may serve to destigmatize it.

Adherence and Deviance

In medical sociology, the term *disease* connotes a physical abnormality, *illness* is the subjective awareness of having a condition, and *sickness* refers to an impaired social role for someone who is ill, with sickness viewed sociologically as a form of deviance (Cockerham 2012). In 1951, Talcott Parsons linked sickness to deviance in what is commonly known as the "sick role." Parson's concept of the sick role assumes that a sick person is deviant but cannot help him or herself, legitimizing the illness state. Medical treatment becomes the avenue that returns the person to a functional (nondeviant) state as soon as possible. While there are many critics of Parson's model, and adaptations of it, the sick role concept is well embedded in medical sociology.

Another sociological model with implications for ADHD is Friedson's (1970) states of legitimacy. The first state is conditional legitimacy where the illness is temporary, and people are exempted from normal responsibilities while receiving special privileges if they are seeking treatment and trying not to be deviant. The second is unconditional legitimacy, where someone

receives permanent exemption and special privileges due to the incurable nature of the condition. The third is illegitimacy, where the person is exempted from some obligations but gains no advantages. There is usually a stigma associated with "illegitimate" disorders. Despite its wide acceptance in the biomedical and mental health communities, ADHD is still a stigmatized and contested disorder. In the realm of education, disability specialists take care to avoid giving students with ADHD unfair advantage, instead just trying to "level the playing field."

An assumption in Parsons' model is that the sick person will try to get well and will cooperate with treatment. This assumption is problematic with any mental illness, including ADHD, because seeking treatment carries a stigma that physical disorders do not have. In addition, the disease itself may cause a denial of the illness (Seagall 1976). With ADHD, some individuals eagerly embrace the label and others reject it with ferocity. Some welcome medication as the primary treatment and others refuse it. The consequences of refusing treatment are significant. Once treatment is refused, the person is labeled nonadherent, adding yet another layer of deviance.

Assuming an ADHD Identity

According to labeling theorists, individuals behave according to what society has deemed normal. When a person exhibits a behavior that violates a norm, society labels the behavior as abnormal, and the individual as deviant. Some labeling theorists propose that there is no such thing as ADHD. Most individuals exhibit ADHD-like behaviors at some point. The difference is that for most people, the behaviors have a transitory or impermanent nature to them, while those who are diagnosed with ADHD are considered to have a permanent pathological problem (Tausig, Mitchello, and Subedi, 2004) and are thus labeled mentally ill. Proponents of labeling theory argue that the validity of a diagnostic label is not as important as the way society treats an

individual after he or she receives the label in question (Scott 2004). Being labeled with a "discrediting" social problem leaves a permanent stigma on a person's character (Goffman 1963), which becomes a part of their core identity.

There comes a point when those who have an illness realize that there is something wrong with them. Problems with adjustment, achievement, emotions, and relationships may be long standing. Clinical diagnoses may or may not have been offered. There may be a long period when the circumstances surrounding the person are dysfunctional and chaotic, and individuals assume that this environmental dysfunction is the reason for their deficiencies. At some point, as the external situation changes, but the inner experience does not, a person begins to believe that something is wrong on a personal level. This "wrongness" carries over no matter the external circumstances (Karp 1999). According to Karp, there are four stages to assuming an illness identity. In the first stage, an individual lacks the vocabulary to describe what is wrong, but feels different, uncomfortable, marginal, ill at ease, and in pain. In the second stage, the person comes to understand there is something wrong. The self is seen as internally flawed and efforts to control the disorder are unsuccessful. The third stage is heralded by a transition into the world of "therapeutic experts." Finally, in the fourth stage, the individual comes to grips with the new identity, reinterprets the past in light of the new information and experience, and establishes ways to cope. Each stage in the illness career requires a redefinition of self. Of relevance to my research is Karp's discussion of a recurring loop that occurs with each treatment failure or relapse causing the person to repeat the process again, confirming the chronic nature of the disorder.

Why would someone take on the identity of a person with a mental illness if the benefits are modest and the costs potentially great? What is gained? It may be that an "illness" identity

offers hope that thoughts and feelings will “normalize”, and the “deviant” behavior controlled. There may be relief in the clarity that a diagnosis can provide, and an opportunity to redefine oneself as a person with a legitimate disorder. There is also a belief that the medical community can provide a solution (Danforth and Navarro 2001).

The Sociology of Mental Health and Illness

Sociologists have long been interested in the concepts of mental illness. Joan Busfield (2000) suggests that one can trace this back to Emile Durkheim’s work with the normal and pathological. Durkheim maintained that societies define what is abnormal in order to strengthen and support what is considered normal. Therefore, normal is predicated on what the society values, making it culturally relative. According to Durkheim, there are elements of social cohesion and social control in how a society defines the pathological. For a society to run smoothly, rules must be established, including rules about what is normal and what is not. Attention Deficit Hyperactivity Disorder exemplifies the cultural relativity of a diagnosis. Until recently, it was largely an American preoccupation (Loe and Cuttino 2008; Scheffler et al. 2007).

Popular discourse surrounding the diagnosis of ADHD resembles that of many other mental disorders. In short, explanations that fall beyond the grasp of biomedical/psych framework are largely ignored. Dwight Fee (2000) talks about that which ‘falls beyond the grasp’ of these dominant discourses. Rather than situating mental illness solely with the individual, Fee urges researchers to pay attention to the sociohistorical contexts in which mental illnesses develop. Rafalovich (2004) concurs, stressing the importance a genealogical approach to a social understanding of ADHD, one rooted in historical and contemporary discourse and institutional context. Arguments against ADHD as a valid diagnosis center on the belief that it exists to control unruly children and adults, or that it is a for-profit scheme developed by

pharmaceutical companies. These positions largely ignore the possibility that there may, in fact, be an underlying pathology or phenomenological reality to the illness experience. Fee posits that we can view ADHD and other mental disorders as discursively constructed categories and genuinely real phenomenological experiences at the same time. The experience of mental illness cannot be separated from the discourses established to explain away the dysfunction. Conversely, these discourses cannot be fully understood outside of the cultural and epistemological processes that allow for a mental illness to be experienced in the first place.

Finally, while research on ADHD most often describes perceived deficits, there is a smaller body of literature that argues the merits of ADHD. Lesch (2018) speaks of high functioning ADHD, with such traits as hyperfocus, eidetic learning, and persistent effort. Mahdi and associates describe high energy and drive, creativity, hyper-focus, agreeableness, empathy and altruism (Mahdi et al. 2017). Sedgwick, Merwood, and Asherson (2019) associate divergent thinking, hyper-focus, creativity, curiosity, nonconformity, adventurousness, self-acceptance, sublimation, cognitive dynamism, and energy as positive constructs of ADHD. People with ADHD thrive under certain conditions and may be valued for their contributions. Why, then, are these same traits often defined as pathological?

OVERVIEW OF ADHD

ADHD is a neurodevelopmental disorder found in both children and adults. According to the American Psychiatric Association (2013C:1), ADHD is “characterized by a pattern of disruptive behavior, present in multiple settings, that can result in performance issues in social, educational, or work settings.” Once considered a childhood condition, ADHD is now viewed as a life span disorder (Asherton et al. 2012; Conrad and Potter 2000; Feifel and MacDonald 2008). As many as 10 million adults have ADHD (National Resource Center on ADHD 2019),

impacting health outcomes (Landes and London 2018) and quality of life well into late adulthood (Lensing et al. 2013). According to the 2016 Centers for Disease Control and Prevention statistics (Center for Disease Control and Prevention 2019), approximately 10.2 percent of children 4-17 years of age had been diagnosed with ADHD in the United States. This represents a significant increase in the diagnosis between 1997 and 2016 across all subgroups (age, sex, race/ethnicity, family income, and geographic regions) (Xu et al. 2018). There is considerable variation in the rate of diagnosis by state, ranging from 5.6 percent in Nevada to 18.7 percent in Kentucky. Boys are more likely to be diagnosed with ADHD than girls by a 2.5:1 margin (Center for Disease Control and Prevention 2019).

The History of Attention Deficit Hyperactivity Disorder

German physician Heinrich Hoffman was the first to describe an ADHD-like condition in his poem aptly titled “Fidgety Philip” (Penrice 1996), however most scholars consider English pediatrician George Still to be the founder of ADHD as a diagnostic category. In the early twentieth century, Still described a condition in children resembling ADHD. He referred to it as a Morbid Defect of Moral Control (Ford 1996). He believed it was an innate (genetic) behavioral problem. By the 1930s, Still’s explanation was replaced with the viewpoint that a physical injury to the brain caused ADHD. This shift in the ADHD paradigm was largely due to an outbreak of influenza from 1918 to 1919, producing encephalitis in some survivors. The hyperactivity seen in Post Encephalitic Disorder was like that found with a Morbid Defect of Moral Control, thereby linking the two. The terminology of both disorders changed to Minimal Brain Damage (Rafalovich 2001).

An important moment in ADHD history was the discovery that amphetamines could be given to “problem children” to improve behavioral issues. Amphetamines were used to treat

many medical conditions in the early twentieth century but were not widely used for behavioral problems until the mid-20th century (Ford 1996). In 1957, methylphenidate (Ritalin) hit the market. At the time of its release, methylphenidate was prescribed to treat depression, chronic fatigue syndrome, and narcolepsy (Schwarz 2016). By the end of the 1960s, however, Ritalin was used to treat children with ADHD. At about the same time, the term Minimal Brain Damage was replaced with Minimal Brain Dysfunction due to observations that the condition existed where no known injury had occurred. The 1960s culminated in a diagnostic category in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-I)* called Hyperkinetic Reaction of Childhood (Lange et al. 2010). Minimal Brain Dysfunction, and Hyperactive Child Syndrome were both considered acceptable diagnostic terms.

The 1970s brought another fundamental shift in the prevailing ADHD discourse. Until this time, hyperactivity was the focus. In the 1970s, researchers began to include inattention and impulsivity as symptoms of ADHD. The name of the disorder changed to Attention Deficit Disorder in the 1980 edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III)*. The American Psychiatric Association determined that inattentiveness was the primary symptom of the condition, pushing hyperactivity to the background. Hyperactivity was reintroduced when the 1987 update, called the *DSM-III-R*, was released. The name changed most recently to Attention Deficit Hyperactivity Disorder (Lange et al. 2010; American Psychiatric Association 2013a).

The Cause of ADHD

There is no universally agreed upon cause of ADHD. The words neurodevelopmental or neurobiological are often associated with the diagnosis. Unlike other medical conditions, there is no test to confirm the presence or absence of a specific genetic or biological origin. There is

speculation that ADHD is not a single disorder at all, but an umbrella term that encompasses several conditions (Saul 2015). It may have a strong genetic component.

The biomedical model provides the most accepted explanation for Attention Deficit Hyperactivity Disorder. This perspective presumes that the chief cause of a given mental illness can be identified in the same way that germs or viruses cause physical illnesses (Tausig and Michello 2004). Despite widespread acknowledgement of the biomedical model, ADHD is included in the *Diagnostic and Statistical Manual of Mental Disorders,* thereby also labeling it a mental illness.

One explanation for ADHD is the catecholamine theory. Catecholamines are neurotransmitters that regulate complex neurobehavioral activities such as cognition, attention, focus, and alertness (Prince 2008). Catecholamine theories suggest that, compared to people without ADHD, individuals with the disorder have higher or lower levels of these neurotransmitters in the brain. Excessive levels of epinephrine and norepinephrine, and dopamine, the so-called adrenergic catecholamines, may play a role in the hyperactivity aspect of the disorder. Many studies link all three neurotransmitters to ADHD (Bierdman and Spencer 1999; Hanna 1996; Berridge and Waterhouse 2003).

On a more functional level, individuals with Attention Deficit Hyperactivity Disorder have similar brain structures to those with frontal lobe injury. The frontal lobe plays an important role in attention, goal directed behavior, and emotional experiences. Two major research tracks support the theory of frontal lobe dysfunction. In a seminal study published in the *New England Journal of Medicine,* Zametkin (1995) found that PET scans, which measure glucose utilization in the brain, detected significantly lower levels of glucose metabolism in the frontal lobes of adults with Attention Deficit Hyperactivity Disorder. Other studies found similar patterns of

glucose utilization in the basal ganglia, where dopamine is produced. A recent study found that adults with ADHD are more than twice as likely to develop Parkinson's or other basal ganglia disorders than those who do not have ADHD, supporting the hypothesis that the basal ganglia may play a role in the etiology of ADHD (Curtin 2018).

With the increased availability of MRI and CAT scans, researchers are finding differences in the anatomical structure of the frontal lobe and the corpus callosum, which connects the two hemispheres of the brain. Brain activation studies using MRI scans have found abnormalities in simple and complex cognitive processing and the interplay among them (Cortese and Castellanos 2012; Hale et al. 2007; Mathews, Nigg, and Fair 2014). Adults with ADHD have shown abnormalities on electroencephalograms (EEG) in the areas of arousal and attention (Hermens et al. 2004). Structural abnormalities have been found in the anterior cingulate cortex, an area of the brain involved in cognition, attention, affect, and drive (Makris et al. 2010). Right hemisphere processing and interhemispheric processing dysfunction have been associated with psychiatric comorbidity and cognitive ability in ADHD children (Hale et al. 2009).

A technology called Single Photon Emission Computed Tomography (SPECT) examines areas of the brain previously difficult to view. Using SPECT, Daniel Amen has proposed that there are seven subtypes of ADHD, based on the area of the brain affected (Amen 2013). Dr. Amen claims to have done 140,000 SPECT scans over 29 years and is definitive in his use of SPECT to diagnoses ADHD (Amen Clinics 2019). His assertion has its critics (Hall 2013; Carlat 2008), who say that the use of imaging to draw conclusions about ADHD is not evidence based.

Finally, genetic studies suggest that there may be a hereditary component (Zametkin 1995). Smith and Wilson (2003) contend that as much as 80 percent of differences in ADHD and

non-ADHD individuals may be explained by genetics. Other studies have shown no significant genetic influence for attention, impulsivity, and activity, all key symptoms of ADHD (Heiser et al. 2006). Attempts to identify specific gene markers for ADHD susceptibility have not been successful (daSilva et al. 2010) although efforts continue (Greven 2014; Zhang et al. 2012).

Even among those who subscribe to the biomedical model, there is no consensus as to the cause of ADHD, nor is there a definitive diagnostic test. In almost all cases, a diagnosis is made without the benefit of any medical testing at all. Despite this lack of agreement, or conclusive evidence, the medical model is still widely accepted, along with the assumption that psychoactive medication is an effective way to treat the symptoms of ADHD. By 1996, non-biogenetic explanations for ADHD were largely dismissed (Schmitz, Filippone, and Edelman 2003; Rafalovich 2005).

The Diagnostic Process

The subjective nature of diagnosing ADHD presents a unique set of issues. There is a risk of over-diagnosing or under-diagnosing due to limitations with the current diagnostic criteria and rating scales, comorbidity of ADHD with other psychiatric disorders, and the lack of a definitive test to confirm or deny the presence of ADHD. The diagnostic process itself is highly variable. Much of the information used to diagnose younger children comes from parents and teachers (Rafalovich 2005; Wasserstein et al. 2001). Adults often self-diagnose before presenting themselves for formal evaluation. Sometimes there is no formal evaluation. Adolescents and young adults are often diagnosed by primary care physicians based on self-reported symptoms (Ahmed, Llanwarne, and Lehman 2018).

The most widely used reference for diagnosing mental illness is the *Diagnostic and Statistical Manual of Mental Disorders*, published by the American Psychiatric Association.

Persons are diagnosed with ADHD after meeting specific diagnostic criteria. First published in 1952 with 60 disorders, it has undergone both major and minor revisions since then. The titles reflect the revision status, for example, *DSM-II or DSM-III-R*. The latest version is the *DSM-5*. The *Diagnostic and Statistical Manual of Mental Disorders* has been criticized over the years for a variety of real or perceived flaws (Cooper 2004; Pickersgill 2014; Shaffer 1996). Some of these were addressed in the more recent revisions. For example, critics argued that changes to the *DSM-III and DSM-III-R* were made behind closed doors, limiting input and discussion. For the *DSM-IV*, the American Psychiatric Association published the rationales for changes in a sourcebook available to all for review. There was a greater attempt to be inclusive (Shaffer 1996).

The APA (2013b) contends that the *DSM-5* revision was a multidisciplinary effort where the voices of many different practitioners were solicited and heard. The American Psychiatric Association recruited over 160 top researchers and clinicians from around the world to join the *DSM-5* Task Force. In their brief, "The People Behind the *DSM-5*," they report, "These are experts in neuroscience, biology, genetics, statistics, epidemiology, social and behavioral sciences, nosology, and public health" (2013b:1). A look at the breakdown of the task force provides a more telling description. There were 100 psychiatrists, 47 psychologists, two pediatric neurologists, three statisticians/epidemiologists, and one each of the following: a pediatrician, a speech and hearing specialist, a social worker, a psychiatric nurse, and a family representative. There was no representation from sociology.

The classification of mental disorders in the *Diagnostic and Statistical Manual of Mental Disorders* is historically and culturally situated (Nguyen and Cantor 2006). Psychodynamic models influenced the *DSM-I* and *DSM-II* and were replaced by the biomedical model in the

DSM-III and subsequent versions. Attention Deficit Hyperactivity Disorder is a prime example of the subjective and changeable nature of the diagnostic classification system. In a relatively short period, inattention was included, excluded, and then included once again. No reason was ever given for the deletion of the inattentive form of ADHD in the *DSM-III*, but there was a widespread call for it to be restored. It was again included in the *DSM-III-R*, but with no commentary on the basis for the decision (Lahey et al. 1987; Shaffer 1996). Despite its perceived limitations, the *Diagnostic and Statistical Manual of Mental Illness* is the authoritative source for diagnosing mental health disorders in the United States.

The ADHD Diagnosis

The symptoms of ADHD are assessed through direct observation or patient history (Goldstein 2009). ADHD symptoms vary from day to day and may be context specific (Koro-Ljungberg and Bussing 2009). Teachers and other school personnel are influential in referring students for an ADHD diagnosis. Parents often provide information for minor children (Rafalovich 2005). Questionnaires have been developed to expedite the diagnostic process, although many of the symptoms on these questionnaires are found in other disorders, such as oppositional disorder and sluggish cognitive tempo (Jacobson and Mahone 2018). Because there is no neurological tests or brain imaging test for ADHD, it remains a subjective process (McGough and Barkley 2003).

The *DSM-5* divides the symptoms of ADHD into two groups, (1) inattention and (2) hyperactivity and impulsivity. Based on the symptomatology, a diagnosis is made for one of three ADHD subtypes, which include: (1) Attention Deficit Hyperactivity Disorder, Predominantly Inattentive Type; (2) Attention Deficit Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type; and (3) Attention Deficit Hyperactivity Disorder, Combined Type.

Rasmussen and Levander (2009) found that ADHD symptoms intensity and subtypes did not differ regarding age and gender, but other studies suggest there may be some differences (Ramtekkar et al. 2010).

The ADHD criteria were developed by studying children, not adults. ADHD presentation is not stable across time and the criteria do not account for symptom changes with age (Hechtman et al. 2011; Kubose 2000; Mannuzza, Klein, and Moulton 2004; McGough and Barkley 2003). The hyperactive-impulsive symptoms have been routinely criticized for not capturing the adult expression of these symptoms (Knouse et al. 2008). This does not necessarily discount the usefulness of the criteria in diagnosing adults (Spencer 2004). The *DSM-5* has addressed concerns that the diagnostic criteria were not relevant to adults with ADHD. According to the American Psychiatric Association (2013c:1), "The definition of attention-deficit/hyperactivity disorder (ADHD) was updated in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* to more accurately characterize the experience of affected adults. This revision is based on nearly two decades of research showing that ADHD, although a disorder that begins in childhood, can continue through adulthood for some people." Historically, one of the biggest challenges to the diagnosis of ADHD in adults was that there had to be a history of ADHD symptoms prior to the age of seven. This requirement was changed from seven to twelve in the *DSM-5*. Another obstacle to the diagnosis of ADHD in adults was the requirement that six symptoms of hyperactivity and six symptoms of inattention be present before a diagnosis could be made. This was changed to five in older adolescents (over 17) and adults, while children must still present with six or more. The definition of ADHD and the number of required symptoms were updated in the *DSM-5*, but the criteria remained the same.

Treatment of ADHD

Medication. Medication management has been widely accepted as the first line of treatment for ADHD because it is thought to alleviate the symptoms at a biological level (Barkley, Murphy, and Fisher 2008; National Institute for Health Care Excellence 2018; Piper 2018). While not a panacea, the drugs "level the neurobiological playing field" and give adults a better chance to develop other coping skills (Weiss, Hechtman, and Weiss 1999:32). These are powerful drugs with significant side effects. There is uncertainty and ambivalence about the use of medications, both in the lay public and among the physicians who prescribe these drugs (Schmitz, Filippone, and Edelman 2003). Rafalovich (2005) found that there is significant autonomy in the diagnosis and treatment process among physicians. A process of negotiation and interpretation was used to make decisions about medication. Physicians did not automatically put children on medication, although medication was clearly considered as a viable option. Others are highly critical of the use of medications to treat ADHD, either questioning the validity of the diagnosis and/or the motives of the pharmaceutical industry. (Conrad and Barker 2010; Diller 2006).

Amphetamines are the most prescribed medications for ADHD. These are Schedule II controlled substances because of their high potential for abuse and addiction (Shields, Fox, and Liebrecht 2019). The exact mechanism by which they work is unknown. The use of these drugs is largely an American phenomenon but is increasing globally (Scheffler et al. 2007). In 1999, the United States consumed 90 percent of the methylphenidate available in the world (Loe and Cuttino 2008). More recently, the US population grew by eight percent from 2006 to 2016 while methylphenidate use increased 13 percent and amphetamine use doubled (Piper et al. 2018). Twice as many boys than girls take stimulants for ADHD (Nissen 2006), although that

discrepancy is closing, especially in adult women. A recent study reported, “The percentage of privately insured reproductive-aged women who filled a prescription for an ADHD medication increased 344 percent from 2003 to 2015. ADHD medication prescriptions increased across all age groups and U.S. geographic regions, and the increase was confined to stimulant medications” (Anderson et al. 2018:68).

Estimates of effectiveness vary from as low as 13 percent (Edmunds 2007) to 70 percent (Torgerson, Gjervan, and Rasmussen 2008). An extensive literature review on adult ADHD found support for the pharmacological treatment of ADHD, with the stimulants methylphenidate and amphetamine, and the antidepressants desipramine and atomoxetine, having the highest efficacy rates (Davidson 2008). Even with optimal treatment, however, neurocognitive impairments persist in individuals with ADHD (Gualtieri and Johnson 2008) because the drugs do not ameliorate deficits in cognitive function (Biederman et al. 2009).

Atomoxetine, commonly known as Straterra, is a non-amphetamine alternative to drugs such as Ritalin and Adderall. Atomoxetine can improve executive function impairments and improve the quality of life in adults with ADHD (Adler et al. 2008; Brown et al. 2009; Durell et al. 2013). A recent study of adults taking atomoxetine showed that 50 percent responded to treatment, but only one patient found enough benefit to continue the drug for the one-year study period. Reasons for discontinuing therapy were decreased efficacy over time and the high incidence of side effects (Johnson et al. 2010). A study of 270 adults comparing atomoxetine effectiveness in younger and older adults found that 56.4 percent of young adults (age 18-25) and 47.8 percent of adults over age 25 showed significant benefits from the drug (Durell et al. 2010). A four-year study on the safety of atomoxetine supported the long-term efficacy, safety, and tolerability of the drug to treat adult ADHD (Adler et al. 2008). Another drug,

dexmethylphenidate, shows similar safety and efficacy rates for long-term treatment of adult ADHD (Adler et al. 2009).

Noncompliance is an issue with medication therapy for ADHD. Adherence to the medication regimen is correlated with a decrease in ADHD symptoms, but most persons taking ADHD medication report less than perfect adherence to the medication schedule. The adherence rate may be as low as 12 percent after the initial three months of treatment (Safren et al. 2007)

Psychosocial therapies. There has been increased interest in the development of non-medication-oriented therapies for ADHD. Some benefits to psychosocial therapies have been seen in the areas of goal setting, planning, time management, organization, and management of the environment (Bramham et al. 2009; LaCount et al. 2018; Ramsay and Rostain 2007). A group rehabilitation program for adults with ADHD showed a reduction in self-reported symptoms on 16 items of an ADHD rating scale (Virta et al. 2008). The most popular therapeutic approach in the nonmedical treatment of ADHD is Cognitive-Behavior Therapy (Anastopoulos et al. 2018). In a recent study, 72 percent of participants with ADHD found that their overall situation improved compared to the pre-treatment situation (Salakari et al. 2010). A study using meta-cognitive therapy, which focuses on executive time management, organization, and planning, was effective in improving core ADHD symptoms (Solanto et al. 2008).

Psychological treatment may play an important role in treating adults with ADHD who are motivated and developmentally ready to acquire new skills as their symptoms come under control (Weiss et al. 2008). A review of 26 studies on cognitive-behavioral and neural-based interventions showed that some methods had promise, but the authors point out that cognitive therapy is typically based on correcting cognitive distortions. ADHD involves cognitive deficiencies, not distortions, limiting their usefulness (Toplak et al. 2008).

ADHD AS A DISABILITY

The terminology surrounding ADHD can be confusing. The fact that Attention Deficit Hyperactivity Disorder is in the *DSM-5* makes it a 'mental/psychological' disorder. Throughout its history, ADHD has been viewed as a type of organic brain syndrome, a purely behavioral disorder, and a learning disorder. Currently, the *DSM-5* classifies ADHD as a neurodevelopmental disorder. Intellectual disabilities, learning disabilities, and autism are also included in this category, although they bear little resemblance to ADHD aside from first presenting in childhood.

In the United States, the legal definition of the word disability is provided by the Americans with Disabilities Act (ADA) of 1990 as amended in 2008. Under ADA, an individual with a disability is a person who: (1) has a physical or mental impairment that substantially limits one or more major life activities; (2) has a record of such an impairment; or (3) is regarded as having such an impairment (U.S. Department of Justice 2016). The ADA does not list specific disorders, instead focusing on the functional consequences of the disorder. The original act was amended in 2008, after several legal challenges sought to limit its scope (Heekin 2010). The amendment clarified the ADA definitions and criteria for inclusion. The Act, according to the U.S. Equal Employment Opportunity Commission (2008), "emphasizes that the definition of disability should be construed in favor of broad coverage of individuals to the maximum extent permitted by the terms of the ADA and generally shall not require extensive analysis." This amendment solidified the inclusion of ADHD as a protected category (Heekin 2010).

Implications of ADHD for Postsecondary Education

Students seeking accommodations for Attention Deficit Hyperactivity Disorder in a college or university are typically seen in a dedicated disability services office. This office

usually falls under the larger umbrella of student services. If students are found to have a verifiable disorder, they are eligible for support services and special accommodations, including extended testing time, breaks during class, and the opportunity to test alone.

Section 504 of the Americans with Disabilities Act of 1990 states that no otherwise qualified individual can be excluded from any program or activity receiving federal assistance. As a protected category under ADA, people with ADHD are afforded certain entitlements and accommodations (Conrad and Potter 2000; U.S. Department of Justice 2016). In elementary and secondary education, the Individuals with Disabilities Education Act (IDEA) governs how state and public agencies provide early intervention, special education, and related services in elementary and secondary schools (US Department of Education, Nd). The requirements are different for colleges. In higher education, "reasonable" accommodations must be made for those with disabilities, including ADHD (Smith and Wilson, 2003). However, colleges are not required to provide evaluation, counseling, tutoring, or personal aids, nor must they "fundamentally alter" their programs or incur "undue hardship" (Office of Special Education and Rehabilitative Services 2017). The Americans with Disabilities Act does not require changes to programs that could result in lower academic standards, or that would cause the college undue financial hardship (Thomas 2000:255). Universities seek to comply with the law, while minimizing disruption to the university's order and controlling the costs associated with implementation (Jung 2003).

ATTENTION DEFICIT HYPERACTIVITY DISORDER IN ADULTS

ADHD in adults did not receive much attention until the 1990s, but quickly became one of the most self-diagnosed conditions in existence (Conrad and Potter 2000). As many as 10 million adults may have ADHD, making it the second most common psychological disorder in

the U.S., second only to depression (National Resource Center on ADHD 2019). Many people go undiagnosed until adulthood (Smith and Wilson 2003; Troller 1999). Although the statistics regarding the incidence of ADHD in adults vary, somewhere between 36 percent and 90 percent of children diagnosed with ADHD continue to show persistent symptoms of ADHD as adults, although these symptoms may change (Barkley et al. 2006; Biederman et al. 2008; Wolraich et al. 2005). The persistence of ADHD into adulthood is linked to a 12.7 year reduction in estimated life expectancy related to increased risk of accidents and suicide, less education, lower annual income, greater consumption of alcohol and tobacco, and poorer overall health status (Barkley and Fischer 2019).

Although it is decreasing, there is still a gender gap with respect to the ADHD diagnosis. Males are still more likely to be diagnosed with ADHD, and subsequently placed on medication, than are females (Nissan 2006). Females are more likely to be diagnosed as adults than as children (Wasserstein, Wasserstein, and Wolf 2001). Women are still under-represented in the population of adults ever diagnosed with ADHD relative to the total population (London and Landes 2019). Using data from the 2007 and 2012 National Health Interview Survey, London and Landes (2019) reported an increased prevalence of ADHD among women in all age groups.

There are two primary groups of adults with ADHD: (1) those who were diagnosed as children and continue to have symptoms; and (2) those who are diagnosed for the first time as adults. According to the *Diagnostic and Statistical Manual of Mental Disorders*, even if previously undiagnosed, there must be a reported history of ADHD symptoms in childhood for a diagnosis to be made. Problems with adaptive functioning, finding and keeping a job, or living independently are the main reasons adults present for the initial diagnosis and treatment of ADHD. Symptoms may have been present for years, even as children. The symptoms, however,

may not have been severe enough to cause serious functional impairment because the demands on the children were not great enough, or they had parents who took care of things for them. Firmin and Phillips (2010) confirmed that parents of children with ADHD show a high degree of involvement in the lives of their children, devoting a great deal of time and resources to identifying and solving problem behaviors. The increased autonomy and expectation to function independently as adults may cause the symptoms of ADHD to exceed the adult's ability to cope (Ramsay and Rostain 2007).

There are numerous challenges involved in diagnosing adult ADHD, primarily because of the prevalence of comorbidity. Up to 75 percent of adults with ADHD have a comorbid diagnosis (Ramsay and Rostain 2007). Adults with ADHD often exhibit anxiety, depression, substance abuse, and other disorders (Chen et al. 2018; Watkins 2001; Wasserstein et al. 2001; Wolraich et al. 2005). Although distinct disorders, studies have demonstrated some overlap of symptoms and comorbidity between ADHD and autism spectrum disorders (Antshel and Russo 2019) and Sluggish Cognitive Tempo (Barkley 2012).

The symptoms associated with inattention lead to a variety of problems in adulthood. Adults who have ADHD are often viewed as less mature. They have more self-esteem issues and less well-developed social skills than their peers, leading to problems in college and work environments (Silver 2000). They have fewer close friends and have problems keeping friends (Barkley et al. 2006). Problems with decision making are evident (Mantyla et al. 2010). Hyperactivity is often absent, having been replaced with fidgeting or restlessness (Hermens 2004). Problems with impulsivity may persist, leading to a higher than average incidence of criminal behavior, unstable relationships, and divorce (Klein et al. 2012).

Adults with ADHD experience significantly lower job success and are fired from more jobs due to performance issues related to their symptoms (Barkley et al. 2006). They have trouble completing paperwork on time and meeting deadlines (Matheson et al. 2013). have higher rates of unemployment, and lower incomes (Halleland 2015; Lensing et al. 2015). A study of 800 adults with ADHD and 900 controls found that all the control group participants were employed. Of workers with ADHD who had minimal executive function impairment, 51 percent were employed. Of those with severe impairment, the rate was 6.7 percent (Halleland 2015). Kessler and associates found that ADHD was associated with a 4-5% reduction in on-the-job work performance after adjusting for age, sex, occupation, expected number of hours of work, and year of survey (Kessler et al. 2009), equivalent to 10-20 days of lost productivity. Workers with ADHD were almost twice as likely to have one or more absences per month due to illness than their counterparts without ADHD. They also had twice as many workplace accidents or injuries in the year before the study.

Anxiety, depression, and interpersonal impairments contribute to impaired life satisfaction (Safren et al. 2010). Contrary to results seen in children, the number of symptoms of ADHD is strongly related to the overall degree of impairment (Mannuzza et al. 2011).

THE COLLEGE STUDENT WITH ADHD

By the age of 18, individuals with ADHD have typically had lower grades in school, been more likely to have failed classes, are more likely to have dropped out of high school and are less likely to go to college. However, estimates of the prevalence of ADHD in postsecondary education range from 2 percent to 12 percent of the college population (Nugent & Smart 2014) and at least 25 percent of college students with disabilities are diagnosed with ADHD (DuPaul et al. 2009; Green and Rabiner 2012). It is difficult to determine the exact number of college

students with ADHD because there is no requirement to report the condition. Despite the prevalence of ADHD in the college population, DuPaul and his colleagues found that research to date is limited due to methodological problems with many of the studies. Their review of the literature regarding college students with ADHD is itself limited to studies about the prevalence, functioning, assessment, or treatment of the disorder (DuPaul et al. 2009).

In addition to the symptoms of ADHD, young adults in college are experiencing a profound developmental transition for which they may not be prepared (Fleming and McMahon 2012; LaCount et al. 2018). College students with ADHD are less likely to graduate than their peers (Barkley, 2014; Wolraich et al. 2005). They have lower grade point averages, poorer academic performance, are more likely to be put on academic probation, and drop out of college (Advokat, Lane, & Luo, 2011; Heiligenstein, Guenther, and Levy 1999; Merkt and Gawrilow 2016; Schwanz et al. 2007; Steinberg 1998). College students with ADHD are more likely to report low self-esteem, difficulty adjusting to the demands of college (Shaw-Zirt et al. 2005; Weyandt and DuPaul 2006), and a lower quality of life (Pinho, George, and DuPaul 2017). Higher levels of self-reported ADHD symptoms were related to problems with career decision-making, self-efficacy, academic adjustment, study skills, and grade point average (Norwalk, Nivilitis, and MacLean 2009). College students with ADHD report more difficulty in work-related endeavors (Shifren, Proctor, and Prevatt 2010). Medical treatment does not always diminish ADHD symptoms, nor does it enhance a student's adjustment to college (Rabiner et al. 2008).

The transition to college is difficult, even for students with ADHD who had successfully managed the disorder in the past. Kwak and associates found that students with ADHD have greater academic performance issues and depressive symptoms during the transition to college

(Kwak, Jung, & Kim, 2015). Factors influencing this transition include decreased parental and teacher supervision; increased complexity regarding time management and prioritization; increased demand for independent decision making; and exposure to high risk distractions, such as alcohol or illicit drug use (Murphy, Barkley, and Bush 2002; National Resource Center on ADHD 2019). It may go unrecognized until adolescents move from high school to college, where the structure and support of the family and school are gone. Environmental demands become more complex in college, where the student is expected to have self-discipline, time management, and organizational skills. Self-regulation must substitute for external regulation, often abruptly and without preparation (Wasserstein et al. 2001). While the demands on students with ADHD increase in college, their support systems decrease.

Most colleges offer some type of adult disability services to provide academic support to students who meet federal guidelines for recognized disabilities under the Americans with Disabilities Act (ADA). Supportive services may help students improve their academic success (Kozarova 2017). Of college students with ADHD, only half reported receiving adequate accommodations. Only half of those said they used the available accommodations (Chew, Jensen, and Rosen 2009). Typical accommodations include initial assessment and diagnosis, assistance with registration, delayed drop-add and withdrawal deadlines, tutoring, study skills classes, note takers, additional time on tests, and special software programs (Baverstock and Finlay 2003; Smith and Wilson 2003). The most commonly used accommodation for ADHD is extended time on tests. Jansen and associates (2019) found no significant difference between college students with and without ADHD when given extended time on tests. Both used some portion of the extra time, but it did not improve the scores for either group.

Many college students diagnosed with ADHD believe that medication is necessary in the context of the competitive academic environment. They think they need it to manage their performance in that setting. However, there is ambivalence associated with taking the medication. As they near the completion of their studies, many hope to return to their 'authentic' premedicated selves after college (Loe and Cuttino 2008).

Some research has been done on the effectiveness of various college success strategies. Farmer, Allsopp, and Ferron (2015) studied the effects of a personal strength program on self-determination levels of students with ADHD. Although the results were mixed, there were some positive effects. The study was limited by the small sample size and the fact that their results included both students with ADHD and other learning disabilities. This is not uncommon. Studies often fail to differentiate between students with ADHD and students with other learning disabilities even though they are very different (Gregg 2009).

Fleming and McMahon (2012) extensively reviewed the literature regarding college students and ADHD. They found a significant lack of research on college students with ADHD and "virtually no treatment development research." They propose several treatment options, all of which are directed at changing the affected individual. They acknowledge the feasibility challenges of providing interventions to college students with ADHD in the current climate of limited budgets and resources. Aside from providing treatment, there was no discussion of changes to the educational policies and procedures.

In a study of 3,400 undergraduate students, Blase and her colleagues (2009) found that, despite struggling with these issues more than their peers who did not have ADHD, most students with self-reported ADHD were adjusting reasonably well across multiple domains. College students with a diagnosis of ADHD may represent an especially resilient group,

especially when the student has strong parental support and positive relations with others (Wilmshurst, Peele, and Wilmshurst 2009). Those who attend college may have better cognitive and compensatory abilities than those who do not (Frazier, Youngstrom, Glutting, and Watkins, 2007). Students entering college may have learned to cope with their symptoms or no longer experienced the notable impairments associated with their high school years (Drake, Riccio, and Svenkerud 2019).

EXECUTIVE FUNCTION AND ADHD

Executive functions are a group of skills, thought to be controlled in the brain's prefrontal lobe, that allow a person to focus on multiple streams of information at the same time and adapt to cues from this information as needed. These skills are first learned in childhood and change with time. They are interrelated and require coordination (Jurado and Rosselli 2007).

Various models of executive functioning exist, but core abilities related to executive functioning are working memory, mental flexibility, and self-regulation. Working memory involves the ability to hold a memory in place while other information is coming in. Mental flexibility helps sustain or shift attention as needed. Self-regulation is the ability to set priorities and to control impulsive actions (Center for the Developing Child 2014). Lezac (2012) conceptualized executive functions as having four components: (1) volition, (2) planning, (3) purposive action, and (4) effective performance. These are necessary for socially responsible, productive adult functioning. Other models include concept formation, attention control, initiation, planning, and impulse control as key executive functions (Jurado 2007).

Deficits in executive functioning are thought to underlie many of the symptoms of ADHD. Barkley (1997; 2012) views ADHD as a disorder of self-regulation, or the ability to inhibit and control behavior based on internal controls. Executive functions such as working

memory, motivation, internalization of speech, and behavioral analysis are forms of self-regulation. Impairments in self-regulation cause problems with the organization of behavior, motivational difficulties, and goal directed behavior.

Thomas Brown's (2013) model identifies six key executive functions that may be impaired with ADHD: (1) activation, (2) focus, (3) effort, (4) emotion, (5) memory, and (6) action. He emphasizes that these are interrelated and continuously work together, rapidly and outside our conscious awareness. He also acknowledges the shifting nature of the deficits. While research supports that people with ADHD have more difficulty with executive functioning than non-affected individuals, there may be certain times or activities during which the supposed deficits seem to be absent. This has been referred to as hyperfocus, or the ability to focus intently on something. Rather than refute the existence of executive function difficulties, it supports the notion that ADHD is a problem of attention *dysregulation*, rather than an attention *deficit* (Kimball 2013).

Symptoms of inattention and hyperactivity are known to affect academic and social functioning in individuals with ADHD (Daley & Birchwood, 2010; Nijmeijer et al., 2008), although they may decrease in adulthood (Kolar et al., 2008). Executive functioning is also known to influence academic performance (Best, Miller, and Naglieri 2011; Daley and Birchwood 2010; Langberg, Dvorsky, and Evans 2013), and may be a better predictor of academic adjustment in college. The ability to "initiate tasks, effectively use working memory, plan and organize work, self-monitor tasks, and organize materials subsumed under the domain of metacognition continue to have a significant impact on academic adjustment. In the university setting, the high academic demands coupled with a lack of external structure may be especially taxing for students with difficulties in EF" (Sheehan and Iarocci 2015:1798).

EXECUTIVE FUNCTIONS AND DISORDERS OF TIME

Research findings support a pure time perception alteration in ADHD (Zakay 1990; Barkley et al. 2001; Toplak & Tannock, 2005; Carelli and Wiberg 2012). There are three common methods of measuring time perception, time estimation, time production, and time reproduction. These studies have primarily been conducted with children and are highly technical.

Central to the concept of time is that of working memory, defined as the ability to hold memory in place while other information is coming in. It also involves the ability to recall the past, be situated in the present, and then make predictions about the future. According to Fuster (1985), several functions of working memory must be present for behaviors to be linked across time. First is the retrospective function, or retention of information from the past. This enables the temporal sequencing of events and provides a structure for goal directed behavior. The second is the prospective function, which allows the person to anticipate the next step in the time sequence and to prepare to act. The capacity to hold events in the correct sequence may account for our "sense" of time (Barkley 1997). Working memory deficits are apparent in people with ADHD, making it difficult to adhere to time and schedule expectations (Rabiner 2008).

How does this manifest in everyday life for the person with ADHD? The organization of behavior across time is one of the most prominent characteristics of ADHD and includes problems with a sense of time, the ability to keep track of time, and the ability to change one's behavior in relation to time. (Barkley 2014:4). Barkley refers to this as "temporal myopia," where the person's behavior is governed by events in the current or immediate context rather than by information that pertains to events in the future. This explains why people with ADHD

seem to have little regard for future events, making short sighted decisions that maximize immediate rewards without fully appreciating the consequences.

Aside from the implications for long term goal achievement, issues with time cause short-term problems as well. Throughout the course of a day, we must re-evaluate time priorities and reorganize our schedules based on time demands. This involves an accurate awareness of the time available to complete a task in comparison to what will be required for other activities. This ability is compromised in people with ADHD, preventing them from modifying their behavior in response to real world time demands. People with ADHD may, on the one hand, seem oblivious to time, routinely missing appointments and deadlines. On the other hand, they can become so engrossed in a task that they spend far too much time on it to the detriment of other demands (Rabiner 2008).

McInerney and Kerns (2003) found an interesting connection between time (as measured by time discrimination, time estimation, time production, and time reproduction), working memory, and motivation. The primary goal of their study was to measure the subjective sense of time in children with ADHD, hypothesizing that enhanced motivation would reduce, but not eliminate the time deficits. The results showed a global primary deficit in time reproduction on all measures that could be ameliorated by increasing motivational levels. Secondarily, they found evidence that motivation may influence other executive functions to a greater degree than previously thought. Finally, their results suggest that attention and working memory problems contribute to time reproduction deficits. Their research supports the interrelatedness of ADHD executive function challenges and their relationship to time.

Psychological research has shown that cognitive functions such as attention and memory determine our temporal judgements (Brown 1997; Zakay & Block 2004; Taatgen et al. 2007).

Motivation, mood, emotion, and personality influence time estimates (Wittmann et al. 2006; Droit-Volet & Meck 2007; Rammsayer 1997). For example, time intervals are judged to be longer when we pay more attention to time and there are higher numbers of experiences stored in memory. Our subjective well-being also strongly influences how time is experienced. Time speeds up when we are involved in pleasant activities, but it drags during periods of boredom (Rammsayer 1997).

Johansen and associates (2009) described changes in the 'delay of reinforcement gradient' in people with ADHD. This measures the strength of association between a stimulus, response, and reinforcement. The gradient is altered by inattention, irrelevant distractions, lapses of memory, and time perception. Johansen posits that for all animals, there is a time limited element to reward driven motivators, usually a matter of seconds. For humans, this brief window can be greatly expanded due to our ability to remember the past and envision the future. This can be used to guide behavior *if* the individual can keep the motivators active in memory over time. This is problematic for those with ADHD.

CHAPTER 3

Methodology

My research explored the work of students with ADHD as they tried to adhere to the scheduling and time requirements of their college courses. The following research questions guided this project:

(1) What are the everyday work practices of college students diagnosed with ADHD as they strive to adhere to the schedule and time expectations of college coursework over one semester?

(2) How is this work linked to the processes and activities of the college and other extra local sites of action that influence and are influenced by the local participants?

To address these questions, I used the ethnographic, qualitative research methods of in-depth semi-structured interviews, and to a lesser extent, textual analysis. Qualitative methods are useful when the researcher: (1) wants to look at several interrelated things that cannot be quantified; (2) is interested in naturally occurring phenomena; (3) believes that the researcher can/ought to be a participant; (4) wants to thoroughly examine the participants' beliefs, activities, habits, and interpersonal dynamics; and (5) is exploring complex conditions (Robson 2016; Brown 2010). Qualitative methods allow the researcher to dig deep and look at the big picture. It has the advantage of being less rigidly controlled, allowing for exploration and theory building.

Specifically, I interviewed students with ADHD who were taking classes at a 2-year college as well as the Office of Disability Services staff involved in providing support services to them. Pseudonyms are used throughout the study when referring to all interviewees. I also reviewed the processes, procedures, and texts used at the participating college. In this chapter, I first discuss my research methods through the lens of institutional ethnography, which informed this inquiry. I then explain the study procedures, including recruitment of the participants and

criteria used for their inclusion. I discuss how I collected and analyzed my data and present a brief description of the students who participated in the study.

METHODS

Interviews

This research begins from the standpoint of the student participants. My intent was to learn about their actual lived experiences. I sought to make the "time work" and "work of adherence" visible. To that end, I chose to conduct semi-structured in-depth interviews. Interviewing is an interactional process whereby knowledge is formed and meaning is socially situated (Smith 1990). In-depth interviews are, "repeated face-to-face encounters between the researcher and the informants directed toward understanding the informants' perspectives on their lives, experiences or situations expressed in their own words" (Taylor and Bogdan (1998:88). A semi-structured in-depth interview is one in which the interviewer has a list of topic areas or questions with which to guide the interview, while allowing the informants to talk freely, allowing for new ideas to emerge and encouraging a greater range of responses (Edwards and Holland 2013). From an institutional ethnography perspective, DeVault and McCoy (2002) identified several ways to use interviews to study work processes. The first of these is to investigate the work practices of everyday life, where the focus is learning as much as possible about the experiences of the interviewees. The researcher seeks to know how everyday experiences are shaped by forces outside of the individual's local history.

Another focus is on frontline organizational work. In these interviews, the researcher speaks with individuals "such as teachers, nurses, trainers, social workers, community agency personnel, and other bureaucrats" (2002:760). These individuals typically have access to more information about the organizational processes of a particular institution than individuals on the

outside. Researchers may also seek to interview managers and administrators. This allows the researcher to track the "macroinstitutional policies and practices that organize those local settings" (2002:761). This type of interview often occurs toward the end of the research and is compared with earlier interviews. They may also be used to fill in gaps in the research.

In this study, I interviewed two groups of informants. The first included the student participants, whose experiences and work practices are the cornerstone of the study. I conducted semi-structured in-depth interviews shortly before or within the first few weeks of the semester. The purpose of the first interviews was to gather background information related to the students' prior experiences living with ADHD, key challenges associated with their college experiences to date, as well as previous and current strategies related to meeting time and schedule expectations. I reviewed the students' schedules and course requirements with them. The second interviews took place after the semester ended. All but two of the second interviews were in person. Two were conducted by phone at the student's request.

The front-line workers included the Office of Disability Services coordinators. It was important to interview key Office of Disability Services staff because they are responsible for implementing the institutional policies of the college. The staff interacts directly with students to document the disability, as well as inform, educate, and assist students with their accommodations. The staff also informs faculty and may assist them in understanding and/or providing the accommodations. I interviewed the first Disability Services Coordinator, Ms. Beasley, prior to the start of the study and again shortly after the study began. I focused on the Office of Disability Services policies and procedures, with an emphasis on accommodations for ADHD, especially as they relate to time and scheduling. There were several personnel changes over the course of the study, including the Disability Services Coordinator position.

Approximately one year into the study, I interviewed the new Disability Services Coordinator, Janet, who preferred to be called by her first name. This interview focused on the changes to the department and on recruitment of the study participants. We had less-structured follow-up calls and email communications throughout the remainder of the study.

In my initial research proposal, I built in the option of interviewing other college personnel such as faculty, advisors, tutors, and others who interacted with the student participants during the study period. The content and direction of those interviews was to be driven by information provided by the students during the interview process. Nothing emerged in the student interviews that led me in this direction.

Textual Analysis

I examined several types of texts. First are the transcribed interviews. Additional texts included institutional policies and procedures for registering with the Office of Disability Services and accessing accommodations. I reviewed the instructions provided to instructors and the standard e-mail communication between the Office of Disability Services and the faculty. Course materials were also of interest as these provided crucial information as to performance expectations.

The Setting

The local site of action for this study was a 2-year community college. The college is part of a statewide system regulated by a governing body that establishes standards, regulations, and policies. The college system is comprised of co-educational, non-residential institutions that offered associate degrees, diplomas, and certificates. Individual colleges are highly regulated by the central governing agency. The system rewards uniformity and adherence to policies and procedures. There is a mandatory curriculum for each program and course, including a

standardized course syllabus and set of competencies. The college emphasizes work force development, including expectations related to work ethics.

I chose a community college because this is a common choice among students with ADHD who may not have had as much academic success in their high school years and therefore have limited choices for postsecondary education (Lawrence 2009). I selected this college for its location, size, and because there was a large enough group of students with ADHD registered with the Office of Disability Services. It was also a location with which I had no affiliation. I considered broadening the study to include various types of higher education institutions but chose to focus on one college in one type of system to minimize the effects of extraneous variables that might have influenced the student experiences. For example, all online courses use the same Learning Management System and course structure. The syllabi are formatted in the same way. Academic policies are the same across all courses. There can also be significant differences in the services provided by colleges and universities. For example, universities usually provide diagnostic and counseling services, while community colleges do not. Limiting the setting to one college provided some consistency in the services available to students.

PARTICIPANTS

Recruitment

During the first year of implementation, from September 2016 through August 2017, I met with two Office of Disability Services staff members on different occasions to plan and coordinate student recruitment. I had ongoing phone and e-mail contact with them. Over the course of the study, the Office of Disability Services staff: (1) identified potential student participants, (2) distributed informational flyers, (3) provided me with departmental policies and

procedures, (4) agreed to be interviewed themselves, and (5) participated in less structured follow-up emails and phone conversations

I recruited students for this study from March 2016 through December 2017 with the last interviews completed in June 2018. The Office of Disability Services assisted in several ways. During the initial recruitment phase, the Disability Services Coordinator contacted students who met the study criteria and provided them with a flyer containing my name, a brief description of the project, the selection criteria, and my contact information. These flyers were also placed in strategic locations throughout the campus. Interested students were asked to contact me directly. Five students were enrolled as a result of this first recruitment effort and were interviewed during the Fall 2016 semester. Another four students participated during the Spring 2017 semester. Working with the new Disability Services Coordinator, five additional students were recruited and were interviewed during the Fall 2017 and Spring 2018 semesters.

Interested students contacted me by phone or through an email address created for this purpose. Once initial contact was made, we spoke by phone to verify that they met the study criteria and were voluntarily agreeing to take part. I sent them an e-mail with a more detailed written explanation of the study and a copy of the consent form, encouraging them to contact me prior to the interview if they had questions. I reminded them of their right to revoke consent at any time.

As a token of appreciation, students who came to an interview received a $20 Amazon gift card for each visit ($40 total). I gave them the gift card before the interview began so participants would feel no pressure to stay should they want to leave at any point.

Criteria for Selection

There were no predetermined selection criteria for study participants other than the students. Students had to meet the following criteria. First, they must have completed at least one semester of college coursework by the first interview. Adaptation to college can be stressful and challenging for any student, with or without a disability. Some students adapt well to the college environment while others struggle or leave school entirely (Meaux, 2009). Excluding first-semester students removed the variable of the initial orientation and adaption to college. Asking a first-semester college student to participate in a study that required an investment of time and effort could have been detrimental and was therefore avoided.

Second, student participants must have registered with the Office of Disability Services and provided documentation of a formal assessment and diagnosis of ADHD. While there is no definitive psychological or physiological test to confirm or deny the presence of ADHD, the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* is the authoritative source for diagnosing mental disorders in the United States. Persons diagnosed by a mental health professional are assumed to have met the specific diagnostic criteria in the *DSM*. While that is typically true with children. adult ADHD is often self-diagnosed or diagnosed by medical practitioners who rely on self-reported symptoms rather than on the *DSM* criteria (Conrad 2000). Although the *DSM* has received criticism over the years for a variety of real or perceived flaws (Shaffer 1996; Cooper 2004; Pickersgill 2014), requiring a formal assessment and diagnosis provided some standardization and validity to this study. The Office of Disability Services collects evidence of the student's medical evaluation; therefore, I did not have to review or request access to any medical records.

Third, participants could not have knowingly had a coexisting mental condition that might have influenced their ability to participate in the study or provide informed consent. A significant number of adults with ADHD have a comorbid diagnosis at some point in time (Cuff et al. 2015; Piñeiro-Dieguez et al. 2016). Adults with ADHD often exhibit anxiety, depression, substance abuse, and other disorders (Chen et al. 2018; Wolraich et al. 2005). These conditions could also affect their ability to adhere to the time and schedule requirements of college coursework independent of the ADHD diagnosis. These might also have impaired the participant's ability to provide reliable information. Finally, the demands of the study could place undue stress on someone with an underlying cognitive, depressive, or anxiety disorder. The presence or absence of a coexisting condition was determined by self-report. There was no requirement that the participant document the absence of a coexisting condition.

Description of the Sample

This was a sample of convenience. The participants were included based on predetermined criteria, availability during a specific time period, and their willingness to participate. Over a two year period, I conducted a series of interviews with fourteen different students diagnosed with ADHD who were enrolled in the same two-year community college and two disability services coordinators who worked there. I conducted twenty-eight interviews in total with sixteen different people. Twenty-five interviews were with students. Three were with disability services staff. I interviewed eleven of the fourteen students twice, at both the beginning and the end of a college semester. I interviewed three students only at the beginning of the semester. None of the participants voiced that they wished to withdraw from the study, but after unsuccessful attempts to schedule follow-up interviews, I lost contact with three of them. People

with ADHD are known to have problems with follow through, so I was pleased that all but three of the second interviews took place.

Description of the Student Participants

The students ranged in age from eighteen to forty-six, with a median age of twenty-two. Ten identified as female and four as male. I asked the participants to name their greatest challenges so far in college. The final sentence in the descriptions below reflect what they conveyed to me and are not my interpretations.

Ally: Ally was an eighteen-year-old female diagnosed at age four. She began college as a dual enrollment student, taking college classes while still in high school. She planned to obtain a degree in early childhood education. She enjoyed working with children as evidenced by her program of study and part-time job at a daycare center. Her biggest struggle was staying focused.

Diamond: Diamond was a twenty-five-year-old female diagnosed as an adult at the prompting of a friend. She was a full-time student in her second and last semester at this college, having transferred in prior coursework. She planned to transfer to a nearby university and study environmental technology. In addition to school, she worked fifty hours a week and was raising her daughter alone. Her biggest struggle was focusing on multiple classes simultaneously.

Diego: Diego was a nineteen-year-old male who had been diagnosed for as long as he can remember. He also began as a dual enrollment student and has since become a part-time college student. His goal was to finish his degree and become a radiologic technician. His biggest challenge was “staying study focused.”

Dylan: Dylan was a twenty-year-old male diagnosed in high school at the suggestion of a teacher who also had ADHD and saw a lot of himself in Dylan. He was a full-time college student entering his final semester before transferring to another school to study digital

marketing and computer science. He was interested in how advertising uses psychology to manipulate individuals into buying products. His biggest struggle was time management.

Elie: Elie was a twenty-year-old female diagnosed in middle school. She was a full-time student who planned on transferring to an out of state university after the semester was over to study early childhood education. Her biggest struggle was staying organized, particularly managing time and schedules.

Gerad: Gerad was a 20-year-old student diagnosed in middle school when his teachers and parents noticed him struggling. He was in his final semester and was set to graduate with a degree in hotel and restaurant management. He worked part-time. His struggled with focus and motivation.

Kara: Kara was a twenty-one-year-old female diagnosed in middle school because of her inability to focus and turn assignments in on time. She was a full-time student studying marketing. She planned on transferring to a four-year university for her bachelor's degree. She worked full-time and had two young daughters. Her challenges were managing time, procrastinating, and focusing.

Marissa: Marissa was a twenty-two-year-old female diagnosed at the age of eight when teachers noticed that she could not sit still in her chair. She was a full-time student studying early childhood education because she loved children and had helped raise her younger sister. She worked "very flexible hours" at an antique shop. Her biggest issues were becoming distracted and note-taking.

Margaret: "Marg" was a 46-year-old female diagnosed as an adult when her daughter encouraged her to look into it. She was in her third semester working toward a degree in nursing.

She was purposely unemployed to concentrate on her studies. Her biggest challenges were memory and focus.

Rosa: Rosa was a thirty-two-year-old female diagnosed at the age of twenty-four. She was starting her third semester, working toward a nursing degree. She already had a bachelor's degree in economics and accounting. She worked part-time and had a twelve-year-old daughter. Rosa was very interested in the interview process and thanked me for asking her questions she had not thought of before. Her biggest challenge with college was an inability to concentrate in class.

Samantha: Samantha was a twenty-two-year-old female diagnosed in fourth grade when she went from being an "A" student to failing for not turning in assignments on time. She was starting her fourth semester and was studying drafting technology because she had always enjoyed architecture and engineering. She worked full-time at a bookstore and was an avid player of Magic: The Card Game. Her biggest issue was having the motivation to get her work done.

Sarah: Sarah was a thirty-eight-year-old female diagnosed as an adult when she realized she could not focus on her job as an insurance coder. She was in her final semester before graduation and planned to transfer to a university and study human services, with a concentration in children and families. She worked full-time in crisis stabilization. She had four "very needy children." Her biggest problem in school was time management.

Sue: Sue was a twenty-four-year-old female diagnosed with ADHD after going to a doctor for anxiety. She was a full-time student and hoped to earn a nursing degree. She recently quit her job because if was impacting her schoolwork. Her biggest struggles were time management and focusing.

Will: Will was a thirty-two-year-old male diagnosed in kindergarten after teachers noticed that he had a hard time sitting still and was hard to "reign in." He was a full-time student set to graduate at the end of the semester with a degree in computer science. He worked full-time in a similar field and had one young son who he said kept him busy. His biggest problem was focusing, which led to issues in time management.

DATA COLLECTION

The Interview Process

I began interviewing participants in August 2016 and completed the interviews in the May 2018. Being sensitive to the participants' time and schedules constraints, I met with them at a location and time of their choosing. Interviews with the Disability Services Coordinators took place in their respective offices during the workday. I interviewed nine of the students in a library study room on campus. Three students preferred to meet at their places of employment, two of those being major bookstore chains, and the other a coffee shop. Two of the interviews took place over the phone at the students' request. The study rooms proved to be more conducive to one-on-one interviewing. The phone interviews were audible but were more difficult to accurately transcribe. Public locations were more distracting to the students and to me, but I wanted to meet the students where they were most comfortable.

The initial student interviews took place before or within the first few weeks of a semester. The follow-up interviews took place just after final exams. During the semester, focused, brief follow-up phone calls or e-mails took place. Participants had my phone number, e-mail address, and office location. They could contact me during the study period using whatever method they chose.

All nineteen individuals gave verbal consent to interview and voluntarily signed the consent form. Eighteen allowed me to audio record the interviews, while one preferred not to be recorded. She did agree to my taking notes during the interview. While I considered my notes from this interview in the analysis, I did not attribute any direct quotes to her since I could not guarantee their accuracy. For the recordings, I used an iPhone voice recorder app or a digital recorder. Immediately after the interview, I transferred the files to a computer on a secure server and removed them from the mobile device. I took notes during these interviews whenever certain words or phrases reminded me of something I wanted to follow-up on later. I told the interviewees that I would be taking notes and why. I assured them I would not take notes if it made them uncomfortable, and that they were welcome to look at them. No one expressed concern with the note taking or asked to review them.

Interviews with the coordinators lasted from 45 to 60 minutes. The initial student interviews lasted about 60 minutes, although a few were as long as 2 hours. Follow-up phone calls during the semester never took longer than 10 minutes. The end of the semester interviews tended to be shorter, lasting about 30 minutes, although three were much longer. There was no observed pattern to the length of the interviews. After the interviews, I took my written notes and made digital recordings of them. I wrote summaries and began compiling questions and observations to use during the phone calls throughout the semester and during the final interviews.

At the start of each initial interview, I introduced myself to the participants and shared some information about myself and my interest in the subject of ADHD. I briefly explained the study and then walked them through the consent form, reviewing how I would protect their anonymity and confidentiality. I asked if they had questions and they signed the consent form.

With the coordinators, I described the study and explained that, although I was gathering information on college policies and procedures, job responsibilities, and their interactions with students, there was no intent to make judgements about people or systems. The first Disability Services Coordinator I interviewed appeared hesitant to share much information. I provided her with a written, abbreviated version of my dissertation proposal. Once she read it, and more fully understood the study, she was forthcoming and appeared comfortable in all future communications. No one else expressed concerns and they were supportive, even enthusiastic. I encouraged the student participants to see themselves as the heart of this project. I wanted them to feel that they were active participants in developing this research rather than passive interviewees.

The coordinator interviews began with a list of structured questions about the work they performed. I wanted to know exactly what their jobs entailed. From that starting point, my goal was to create an accurate hierarchical mapping of the Office of Disability Services in order to understand the structures and policies that guided their day-to-day work practices. I also asked for their thoughts on these policies as well as any constraints they experienced while performing their jobs. I sought a thorough understanding of the work being done and how this might impact the students they served.

The student interviews were semi-structured. I had a list of prepared questions, but allowed the dialogue to flow naturally, refocusing on key points as needed. I started each interview by asking routine, nonthreatening questions about the student's age, program of study, family, work, and educational goals. These were answered in a straightforward manner. In nearly every instance, the question that changed the tone of the interview was, "What do you find most difficult about college?" The students usually became more animated at that point and did not

follow a traditional narrative structure. As the interview progressed, they would often divert to topics six or seven questions down the list of prepared questions. If we got off track, I made a note to follow up as needed and eventually asked all my questions. This was difficult at first but became more natural as the interviews progressed. The fluidity encouraged the students to talk freely about their interest or concerns and allowed me to see how they processed information more naturally than if I had limited the interview to a strict question-and-answer format.

There were times that I shared something about my own experience with ADHD, partially to build rapport, but primarily to help the students understand the question I asked. I took care not to lead them but wanted to assure they understood the questions and concepts in the hope of obtaining rich data, which I believe I got. I was greatly encouraged by how much the students engaged during the interviews and how often they thanked me for doing this research. Everyone was very forthcoming and most of them asked for a summary of the results.

DATA ANALYSIS

As previously noted, I transferred the digital recordings from the mobile device to a password protected computer on a secured network in my home office. I transcribed all the interviews myself. Printed copies of the interviews were kept in my home office in a locked file cabinet when not in use. To protect the participants' anonymity, pseudonyms appear on all tapes, texts, and documents except for the consent forms. The consent forms were kept in a locked file cabinet in the researcher's office. Participants could request, at any time during the process, that the tapes and written materials be destroyed. All study participants are identified by pseudonym in the final dissertation report and any future publications.

Once initially transcribed, I corrected the documents for typographical errors or misinterpretation of the words on the audio file. I then listened to the interviews a second time to

be sure the transcribed account was accurate. By doing this work myself, I became familiar with the data before beginning the analysis. Once I finished transcribing and editing the interviews for accuracy, I read through the documents, taking notes about my recollection of the interviews, and identifying preliminary themes and patterns used to create major coding categories. I did not use any software programs to code or sort the data. From there, I copy and pasted excerpts from the interviews into the category it best fit. Multiple excerpts fit in to several categories and I made note of these.

As I read and re-read the categorized interviews, categories, sub themes, and patterns emerged. I refined my categories several times. Each time, I reorganized the information into the new categories, but struggled with the complexity and interrelatedness of the data. Rather than continue to try to force the data into categories, I went back to the original interviews and wrote analytical memos for each. This process allowed the data to guide the analysis, rather than forcing the data into my schema. It helped me to fashion a narrative setup that felt more comfortable and informative. To stay focused on the purpose of the study and its theoretical foundations, I often reviewed McCoy's framework, examining how she presented the data. I finally decided on three main categories that became the basis for the data chapters in this dissertation: (1) the students' experience of the three-way alignment (2) their strategies to maintain the alignment; and (3) how they got the work done.

The actual transcribed texts of the interviews were occasionally edited to make them more readable, for example, removing distracting interjections such as, "um," and "you know," but otherwise they were presented verbatim. I wanted the participants unique voices to come through as authentically as possible. Also, due to the nature of ADHD, responses to questions often took several detours before coming back to the initial point. There were times I had to

guide the discussion back to the initial question. In these cases, I edited the answers to remove the extraneous information.

ESTABLISHING CREDIBILITY

Researchers must demonstrate their own competence to conduct a study. Competence can also be demonstrated by producing a good design that includes assumptions, an awareness of ethical and methodological issues, and a sound rationale for choosing these methods (Marshall and Rossman 2011). My competence to conduct this study is supported by: (1) having completed extensive academic work, including doctoral comprehensive exams; (2) prior experience conducting qualitative research; (3) extensive knowledge of ADHD; and (4) eighteen years of experience as an educator working with college students, including those with ADHD.

Sociologists have an ethical responsibility to the participants, their colleagues, and the profession itself (Berg 2012). Sometimes, ethical issues are obvious almost immediately after conceiving the design. If not, there are safeguards in place, such as peer review and Institutional Review Boards to raise potential issues. To be credible, a qualitative researcher must disclose and adhere to informed consent procedures. Researchers have a responsibility to protect participants from harm, typically by promising confidentiality of the data, and to protect the rights of the participants throughout the study. This study was initially approved and annually reviewed by the Syracuse University Office of Research Integrity and Protection.

RESEARCH ETHICS

There are always potential risks involved when interviewing individuals who have been diagnosed with a ‘disorder,’ especially when the word ‘deficit’ is part of the diagnostic label. These concerns were minimized by emphasizing lived experiences and work processes rather than outcomes. Regarding the interviews, I took care when asking questions that might have

caused students to feel negatively about themselves. There was no intent to make judgments or draw conclusions in relation to any perceived successes of failures.

I was aware of the possibility that, throughout the course of the semester, students would find themselves emotionally drained, frustrated, or struggling academically. Due to the students' ongoing relationships with me, I was concerned that they might seek advice or ask for other types of assistance. It was critical that I not act outside the role of researcher in these circumstances. Support services were in place to assist students, including the Academic Success Center, the Office of Disability Services, and a Counseling and Support Center where students could receive crisis intervention and short-term therapy. I familiarized myself with these resources and was prepared to share them with the students. This did not turn out to be necessary.

CONCLUSION

In this chapter, I explained my research methods, described how I collected and analyzed the data. In the next three chapters, I present findings from the data. In Chapter 4, I present data on how the student participants experienced time and worked to maintain a three-way alignment. In Chapter 5, I examine strategies the students used to maintain the three-way alignment, including a discussion of the Office of Disability Services and the accommodations it provided. Chapter 6 explores challenges to maintaining the alignment and completing the work.

CHAPTER 4

"I am not a big fan of time"

The Alignment

Modern societies are dependent on a common understanding of time. Shared interpretations of the world provide order and stability (Rafalovich 2004). In western society, social life would not be possible without the ability to relate to time in a common fashion (Schutz 1973). In his work on social time, Durkheim (1965:130) maintained that a universal conception of time was necessary, because without it, "all contact" between the minds people would be impossible, "and with that, all life together." Therefore, a standardized system of time is required in modern society. Schutz (1979) calls this "world time." By necessity, world time does not change to accommodate the individual. Instead, the individual must adapt his or her inner experience of time and awareness of clock time to the rhythms of world time, manifested in this dissertation in the form of a schedule.

Time and schedules are inseparably linked. Adherence to a schedule is a type of "time work." McCoy (2009:128) found that, for her study participants, the inner experience of time and standard clock time must align in order to adhere to a structured schedule of pill taking. Adherence to the schedule was complex and required a form of self-work, "including self-examination and self-adjustment, as the participants developed strategies for doing adherence" (p. 128). Students who attend college are also engaged in a characteristic form of self-work, requiring a similar three-way alignment in order to adhere to the schedule of activities required by their coursework. Maintaining this alignment and adhering to the schedule is difficult for students with Attention Deficit Hyperactivity Disorder (ADHD) due to alterations in time perception, recognition, reproduction, and management (Barkley 2001; Prevatt et al. 2001).

In this study, I used McCoy's model as a framework to explore how college students adhered to the expected schedule of institutional and course related activities. I sought to learn what they were doing while trying to adhere. McCoy's model proved useful, but it was not enough to explain the challenges faced by my study participants. While both her study group and mine struggled to function within a prescribed schedule of activities, and both involved a distinctive type of high stakes work related to issues of time and adherence, the students in my study had the extra burden of challenges commonly associated with ADHD. Supporters of the biomedical and psychological perspectives describe ADHD as a disorder of executive functioning leading to problems with motivation, self-regulation, volition, memory, attention, and focus (Barkley 2008; Reaser et al. 2007; Thomas 2016). Current discourse situates ADHD in the biomedical and psychological models, supporting the position that executive function changes seen in ADHD are deficits rather than simple differences.

There are detractors from this position. Sociologist Peter Conrad (2010) has written extensively on medicalization, examining the historical and institutional changes surrounding ADHD. Medicalization involves taking what was once considered a nonmedical problem, behavior, or a normal process of life and redefining it as a disease. Conrad maintains that the diagnosis of ADHD is socially constructed and has questioned its legitimacy as an illness.

Still Conrad and other sociologist do not discount the value of a multidisciplinary approach. Sociologist Gregory Bowden (2014) argues in favor of a biopsychosocial model. While not negating the biological and psychological components of ADHD, he argues that they are insufficient to fully understanding it. Bowden maintains that, "disorders are unintelligible without the normative context the social world provides" (p. 423). He cautions against presuming that the biological model establishes what ADHD is, relegating sociology to

secondary explanations, saying, “Sociology’s conception of disorder will determine its relevance to contemporary problems of ADHD, and it is therefore useful to defend the position that disorders have an irreducible social component” (p. 428).

Claudia Malacrida writes that she is “not interested in providing evidence one way or another to add to debates over the legitimacy of ADHD” (2003:14), “nor whether ADHD itself is a ‘true’ disorder” (2003:44). Adam Rafalovich asserts that ADHD “should not be regarded as a medical falsehood or conversely, as a medical reality” preferring instead to examine the ADHD discourse “as an object in the same spirit as Michel Foucault’s genealogical studies” (2004:8). While arguing in defense of a social constructionist perspective on ADHD, Peter Conrad and Kristin Barker (2010) acknowledge that:

> We do not think it is sociology’s job to adjudicate between what is “really” a disease or illness and what is “socially constructed.” Indeed, like Hacking we consider this to be a false binary. From a social constructionist perspective, the point is to investigate how something comes to be defined as a “disease” or “illness” in the first place. Sociologists can further study the extant and changing cultural meanings that may inhere in a disease or illness while remaining agnostic about the “underlying” biological condition. In any given case, it is the viability of the idea of disease or illness itself (rather than its validity, per se) that is of greatest interest to sociologists. (P. S77).

As a sociologist, I concur that ADHD is a medicalized disorder, but I see the merits of various points of view. A diagnosis of mental illness can follow a person for a lifetime with serious consequences. However, medicalization can also destigmatize a disorder and encourage research into the cause and treatment. A medical diagnosis can transform something from an unconnected group of ambiguous symptoms to an organized illness (Conrad and Potter 2000). It occurs on several levels: the conceptual, the institutional, and the interactional (Conrad and Schneider 1992). Conceptually, this plays out in the contentious discourse of ADHD. Institutionally, the interplay of education, academia, health care professionals and organizations, and governmental agencies have contributed to the medicalization of ADHD (Conrad and Potter

2000). The interactional level consists of points of contact in the health care and educational systems and the process of diagnosing and treating ADHD. Other elements of medicalization as described by (or criticized by) sociologists such as Light (2000), Zola (1994), Bury (1986; 2000) and Friedson (1970) also contributed to an understanding of the trajectory of ADHD as a medical/mental illness.

I do not argue the conceptual merits of an ADHD diagnosis, or the validity of an underlying pathophysiology. Furthermore, I am keenly aware of the socially constructed and medicalized nature of the executive function models pervasive in the biomedical/psych literatures. The participants in this study and I are situated within this discourse and use much of its language and concepts. As such, moving forward, I choose to use the term executive function (and its derivatives) as a representation of the language the students used to describe their experiences to me, and to the extent that my data analysis showed a connection between those experiences and the three-way alignment. I will explore the institutional and interactional implications of having ADHD in a select group of college students, in a specific social location. The point of entry is the everyday experience of students with ADHD as they worked to adhere to the time and scheduling demands of college. In doing so, I examine the institutional and interactional practices impacting these experiences.

Chapter 4 examines the students' inner experience of time, awareness of clock time, and adherence to the schedule and how these are impacted by attention, memory, and focus. Maintaining the three-way alignment requires that a person stay aware of time and accurately perceive the duration of past and future events associated with it. I observed a disconnect between inner experience of time and an awareness of clock time, negatively impacting their ability to adhere to the schedule. While students were acutely aware of the schedule, they often

had trouble adhering to it. This chapter leans heavily on the psychological and biomedical fields because this is where most of the current research on ADHD originates. It is impossible to ignore these findings. However, the students' actions did not occur in isolation and are not without social context. Therefore, I will firmly situate the findings of this study in the historical and contemporary social determinants of their experiences.

AWARENESS AND THE THREE-WAY ALIGNMENT

Reference points to measure time (and therefore schedules), do not have to be tied to clock time. For example, a person might refer to, "the time I backpacked through Europe," or to the number of miles before needing new tires (Hassard 1990). However, in the modern Western world, the most common frames of reference for time are the clock and the calendar. We are socialized to think about the passage of time in standard units such as minutes, hours, days, and months. These common temporal references exist at even the global level. Zerubel (1982) maintains that standardized time is artificial, somewhat arbitrary, and is disconnected from the natural world. Nevertheless, it is entrenched in modern society and cannot be avoided. On a macro level, the standardization of time arose out of the establishment of national networks such as communication and transportation systems (Hassard 1990). At the mid-level, the advent of compulsory education required the establishment of a school year. At a micro level, families coordinate schedules, employers cover shifts, and educational systems establish units of the school day. It is in this broader social context that the academic schedule emerged.

Time became more routinized as society moved from hunting and gathering to agriculture to industrialization. It changed from a qualitative experience based on nature and social relationships to a quantitative experience based on economic considerations (Thompson 1968). In a capitalistic society, all other experiences of time revolved around this mechanized and

routinized conception of time. Time, according to Marx, became a commodity of value. Critics of the ADHD diagnosis suggest that ADHD is a result of this rapid change in the social organization of time. What we now call "symptoms" of ADHD would have been useful abilities as hunter-gathers (Konnor 2010). Konnor refers to this as the discordance or "mismatch" model, whereby the environment has changed faster than we can keep up. There is some genetic evidence to support this. Anthropologists Dan Eisenberg and Benjamin Campbell (2011) reported that populations still practicing a nomadic lifestyle tend to have higher frequencies of the DRD4 7R (ADHD-associated) allele than sedentary populations. Their results were consistent with prior studies associating the DRD4 7R allele with migration patterns. The authors say, "Given the association of the DRD4 7R allele with ADHD these results suggest that there is something about the nomadic context that allows people with ADHD-like behaviors to be more successful in an evolutionary sense" (p. 22). They continue:

> From studies of modern hunter-gatherers, we can surmise that learning took place through play, observation, and informal instruction, rather than through the highly regimented classrooms almost all of us have experienced. It is no surprise that ADHD is usually diagnosed in children who have trouble focusing "properly" in school, and it continues to be a problem for adults when their work or lifestyle requires focusing in particular, regimented ways. There is good reason to believe that in our evolutionary past, ADHD was often not much of a problem and was perhaps even an asset (P.21).

Although once advantageous, we now live in a world that rarely requires the traits associated with ADHD. The Industrial Revolution required more trained and regulated workers, altering the nature of the educational systems. Widespread compulsory education required adaptation and adherence to "world time" (Schutz 1979). Congregating children in schools for prolonged periods of time made it easier to see differences in children and label them abnormal (Malacrida and Semach 2014; Rafalovich 2004) in order to manage their "disruptive" behaviors (Conrad 2006). In Ritalin Nation (1999), DeGrandpre claims that ADHD is a cultural

phenomenon, a product of social systems that value "on-task" behavior while simultaneously bombarding us with stimuli. Instead of looking at how contemporary culture contributes to the diagnosis, we rely on modern medicine to explain and treat the "abnormal" symptoms associated with ADHD. It is within this social context that I begin my examination of how the students in my study conceptualized and experienced the schedule, the first component of McCoy's three-way alignment.

Conceptualizing the Schedule

Whether written down or memorized, a schedule functions as a means to an end. In making an analogy to McCoy's study participants as they worked to identify and keep track of dose times, the task for the students in this study was to recognize, prioritize, plan, and remember the schedule of activities needed to complete the course requirements.

Schedules are based on repeatable units of time. Throughout the course of a college program of study, the repeatable unit of time is typically viewed in terms of academic years or semesters. I examined the experiences of students over one semester (approximately 4 months). I initially envisioned the semester schedule as beginning on the first day of class and ending on the last day of final exams. It became apparent that the "schedule" started some time before this. An institutional schedule starts before the semester begins in the form of advisement, choosing classes, and registering for them. Anyone using the Office of Disability Services must also to complete paperwork and follow certain procedures before the term begins. Thus, a semester includes the time prior to the start of classes when students are engaged in preparatory work. Many decisions about the schedule had been made by the time I talked to the student participants, who had already done much of the work of conceptualizing the schedule and attempting to gain some initial mastery over it. In conversation with the students, other

repeatable units emerged as significant. They envisioned the schedule in different ways and over different spans of time, including semesters, months, weeks, days, and even hours, most often referring to the schedule in terms of days.

Students conceptualized and managed their schedules differently. Some started planning early to try to get ahead from the start. Samantha started planning before the semester began by looking at her schedule of classes, noting the class dates and times. She then planned other study activities around them. She considered her work schedule and other responsibilities. It is important to note that, at this point, she did not have specific information about the course requirements or time demands. She was also not sure of her work schedule. Her plan was vague, as evidenced by her frequent use of "this" time and "that" time. She tried to build in time for problems, saying:

> For assignments, I prefer to do my work at school. I'll plan days where I am going into this class and working at this time and on this day. In between this and that, I will go to the library. Anything that I do at home, I just say, this is the time I have to go to work, so I wake up at this time, give myself this amount of time, and try to spread it across a few days. I try to give myself time for the difficulties. If there aren't any, then I can just breeze through it and then I have all that extra time.

Another student, Elie, created a rough outline at the beginning of the semester but largely planned her schedule on a weekly basis. Elie explained:

> I usually go by all the things, like I'll do tests first and then onto the quizzes. I'll put it into my planner and write down the dates of the test. Then I'll put it into my phone two days before I have a test on Wednesday. And then I'll just keep going down to homework, same thing. I'll give myself two days advance. If it's due Sunday, I will write on my Friday thing. If I have days and I don't have anything going on, then I'll study on those days.

Sarah also preferred to look at her schedule by the week, thinking in terms of weekly due dates. Although it helped her focus, it also caused her to lose track of assignments that were not due that week, but still required attention. For example, if she looked at her schedule on Sunday, she

would see that a paper was due on Tuesday. Since she only considered the due date and did not think about the time it would take to complete the work, she ended up having to rush through the paper. She explained:

> Um, I like the fact that it is a weekly thing and you know that certain assignments are due on certain days of the week because it kind of makes me sit down and be like okay, I've got to get this done. The only issue with that is that sometimes, I'm rushing through it so I'm not putting my whole effort into it even though I am willing to do it.

Sarah said that she always started the semester determined to stick to a schedule, saying:

> Um, well, whenever the semester starts, I say this time I am going to sit down and do an hour and a half hour of schoolwork every afternoon…but I did that for a while and it's like, I can't stick to a routine. I would love to, but I cannot sit at the computer that long. I can't sit still, and I can't stare at the computer. I tried to set my goals and come up with ways. Like, this day I am going to do one other thing. It never seems to work out that way.

Diego relied on a daily schedule that he planned the night before, saying:

> I hate starting a new schedule, but once I can get into that schedule, I can move on and it clicks, it registers to me. But I just can't…some people can just get up and be like, this is my day. This is where I'm gonna go. I can't do that cos if I wake up in the morning and I don't have a plan before I wake up, nothing is gonna get done.
>
> I try to plan the night before if I can. I'll lay my clothes out and think to myself what I'm gonna do. Like today, I was like ok, I gotta get up around 10:30 because of traffic. Then I have to find a parking space and then I have to get to class 10 minutes before because I know she likes to start early. I go through that in my mind for like the first two weeks, and then after that, it just becomes second nature.

Ultimately, Diego seemed to be the most successful planner because he did not do it too far in advance. He planned the night before. This is consistent with the literature on time discrimination, estimation, and perception in those with ADHD. Time-based prospective memory is the ability to remember to perform an intended action at a given time in the future. Individuals with ADHD have been found to exhibit less strategic time-monitoring behavior. The longer the interval between the awareness of a time-based activity and the actual activity, the less successful the person is in achieving follow through (Giovani, Santon, and Cornaldi 2016).

By contrast, there are those who didn't even attempt to plan much in advance. For some, there was anxiety associated with thinking too far ahead. Ally explained:

> I just kind of go with the flow because I don't like to worry myself that much. I get anxiety too and I stress out when I overthink and think too far in advance. I've just been letting things happen. I started doing that after my sophomore year of high school and my stress levels went down.

Sue does not plan in advance because she believes that unforeseen variables will interfere with the schedule. She reported:

> Yeah, I just jump into it. I don't ever try to plan it out. I think sometimes that's what messes me up, but I honestly just go with the flow. I like to have stuff set a certain way with school in general. I don't really know what it's going to be like, and so I just go into it. They usually have orientations. I don't go there, because I'm like, no matter what you tell me, it's probably not what it's going to be like when I actually start.

*Intersecting schedules***.** Beyond the college structure, the students also had to consider aspects of their lives such as family and work. They made decisions at the beginning of a semester based on what they thought they could handle and information available to them at the time. They attempted to choose classes that fit into their schedules. What they could not know ahead of time was the workload, specific due dates, or how these would intersect with other parts of their lives and other classes they were taking, requiring them to integrate schedules that often competed with one another. While this is true for any student, it can be especially difficult for someone with ADHD. Research shows that, in addition to problems with time, persons with ADHD may also have difficulty with organization, prioritization, and compliance (Reaser et al. 2007). These challenges had a significant impact on the student's ability to successfully integrate multiple schedules.

Some students tried to assign times and dates to activities, but because the schedule was theoretical at the beginning of the semester, they were just guessing. It was not real yet. They were predicting outcomes and trying to build in time for all the potential unknown

complications. Their advance estimations were almost always faulty. As I will show in subsequent chapters, the disconnect was not in an awareness or understanding of the schedule, it was in its execution.

The Inner Experience of Time

The second component of the three-way alignment is the inner experience of time (McCoy 2009). There are many ways to frame time on individual and social levels. Durkheim (1965) distinguishes been psychological and sociological perceptions of time, saying:

> It is not my time that is thus arranged; it is time in general.... Thus, we see all the difference which exists between the group of sensations and images which serve to locate us in time, and the category of time. The first are the summary of individual experiences, which are of value only for the person who experiences them. But what the category of time expresses is a time common to the group, a social time, so to speak (P. 23).

The perception of time is a central feature of human consciousness (Husserl 1964 as cited in McCoy 2009), affecting our actions as we try to mesh our inner sense of time with the outside world by either controlling the schedule in some way or modifying our inner experience of time. Flaherty calls this "time work" (Flaherty 2003). McCoy (2009:131) explains time work as "anything people do deliberately and with some skill that in some way orients to time whether this be inner temporal experience or common clock time." Individuals with ADHD often have different inner temporal experiences than those without ADHD regardless of age, other demographic factors, or comorbid conditions (Barkley 2008, Edwards, et al. 2001).

In the ADHD literature, "inner experience of time" is most commonly referred to as "psychological time," which includes the processes involved in linking a sense of time to actual behavior (Fuster 2008). A psychological sense of time is essential to having the accurate sense of time necessary to engage in everyday activities. This sense of time is frequently impaired for individuals with ADHD when compared to individuals without it (Barkley et al.; Carelli and

Wiberg 2012; Toplak and Tannock, 2005; Zakay 1990). There are three commonly used methods of measuring time. Time estimation is when a person is presented with a specific interval of time and asked to report a perception of the interval. Time production is when a person is asked to identify a stop and start point for a specific interval. Time reproduction is when a person experiences an interval of time and is asked to reproduce the interval. Time reproduction is considered the most difficult and the most accurate representation of a person's subjective sense of time (Zakay 1990). An inner experience of time is an important capacity that assists individuals in their ability to predict and respond to future events (Toplak et al. 2003).

The students I interviewed 'knew' that they experienced time differently and felt that this was largely out of their control. Many expressed that they did not comprehend what "normal" was or understand how other people processed time. They perceived that everything was harder for them and took more time. Ally explained, "I do time slower than everyone else." On her relationship with time, Marissa said:

> My ability to judge and gauge time absolutely sucks. I'll allow myself five or six hours to do something that takes 2. I'll budget that amount time for myself. I never know how long it's going to take me or how long it takes a normal person.

Elie compared herself to her siblings, saying:

> It's been hard, especially because I have siblings that are in college and they don't have anything at all. They don't even have to have the textbook open to take a test. They're just geniuses. But for me, it was weird growing up around my siblings and I was the only one who had trouble. Like I had to sit there and study for hours on end to take a quiz. They would just walk in and take it. There has been a lot of trial and error as far as what works for me in college. I don't think a lot of things I've done have worked. It feels a lot better now that I have something figured out. It's hard, but it's doable.

In our discussion about getting things done on time, I asked Kara, "Do you find anything easy?" Her answer was a simple "no." Several others said the same thing. They could identify nothing that was easy for them.

Almost all the participants in this study initially responded to questions about how they experienced time by relating it to the speed of time. They most often described it as speeding up, but also acknowledged time slowing down. Time was perceived as fluid, fluctuating along a continuum between sluggish and brisk. Most expressed that time went by quickly when doing something enjoyable and slowed down when doing a less enjoyable activity.

Will reported:

> It's like a roller coaster. Time tends to speed up doing something I enjoy. I think that's the universe laughing at us. When I enjoy something and I'm doing something I like, there is never enough time. It seems to speed up. Then you run out of time and it's back to the dragging day.

According to Elie, "Time goes slowly when I'm doing something I don't like. Like I don't like sitting in math class. Time goes fast when I'm enjoying what I'm doing." Marissa acted to prevent time slowing down, saying:

> I try to constantly keep myself busy, so my brain doesn't slow down, so I keep going and don't stop to try to lessen those gaps when I have nothing to do. If I find myself with nothing to do, time goes so slow. If there's no deadline associated, or it's something I don't want to do, time goes incredibly slow.

These students seemed to express a preference for experiencing time as fast, as evidenced by Will's choice of the word "dragging." Will and Elie described time as slowing down when not engaged in something they enjoy. Marissa went a step further and tried to keep busy to avoid her "brain slowing down." Without the pressure of a deadline or an undesirable activity looming, speed was perceived positively. As shown in subsequent sections, the intersection of clock time and schedules more often produced stress, as time seemed to spiral out of control.

Participants commonly reported that time, in general, "feels" fast. Samantha described it as a feeling that her mind is, "Crazy fast, like, frame by frame, it's running through my mind."

Will described his brain as having, “a thousand thoughts per minute.” For Sue, her experience of time was unrelated to what she was doing, saying:

> I think for most people, when they don't have anything to do, that's when the time goes really slow, but I'm kind of the opposite. Even when I'm having fun it does go by fast, but even if I'm not doing anything, it goes fast too.

Diego’s response was interesting in its contradiction. When he thought about the big picture, time felt slow. When reflecting on an extended period of time, it felt fast. He expressed a sense of confusion about why it felt different when he said:

> I feel like it's going really slow in the bigger scheme of things. Like when I think about the fact that I've been doing this for how many years to try to better myself…it feels like so long, but once it's done, it feels like, wow, that was fast. There are certain tasks that I have to do that are really fast, or seem really fast, and it doesn't seem like it should have been for me. Then there are other times where I have something to do and it's kind of big like a paper, and the days literally just go by. It feels like the days I should be spending doing something are just going somewhere else and it's not getting filled up with anything else more so than any other day.

Diego expressed the feeling that time was just “going somewhere else,” reflecting a passive relationship with time that also appeared in several of the other interviews.

Awareness of Clock Time

The third component of the three-way alignment is an awareness of clock time. Standard clock time is abstract, standardized, shared, cyclical, and endlessly repeated (McCoy 2009). Coordinating our inner experience with clock time starts at a young age as we learn to “tell time” and understand how time relates to our activities. Throughout any given day, our awareness of clock time varies. Sometimes we are very much aware of it and sometimes not, but adherence to a schedule of activities requires an awareness of clock time and a sense of past, present, and future. Attention, working memory, and long-term memory affect our temporal judgements as do motivation, mood, and emotion (Wittmann 2009). Individuals reporting ADHD symptoms have been shown to have more negative thoughts of the past and less optimistic views of the future

(Carelli & Wiberg, 2012). They are more inclined toward a present orientation and to be less future oriented than those without ADHD (Scholtens, Rydell, and Yang-Wallentin 2013; Weissenberger et al. 2016) Often, people with ADHD do not sequence events as others do, seeing past, present, and future events as intertwined with memory, emotions and other activities (Hodges 2004). Modern western society requires the synchronization of our inner experience of time and clock time to achieve what Flaherty (2009) referred to as a "comfortable temporal experience." Given that a person diagnosed with ADHD may not experience time as others do, it is not surprising that my study participants described an uncomfortable relationship with clock time. Marissa described it this way:

> Umm, personally, I'm not a big fan of time. We talked about it earlier. I need the adrenaline of deadlines in order to get anything done. So, I may not like it, but it is a necessity of my life.

According to McCoy (2012), adherence to a schedule requires frequent checks of the clock to maintain the alignment between inner experience and clock time, although the pressure to maintain the alignment changes throughout the day. McCoy (2012:134) describes "stretches of inner experience when the awareness of clock time loosens considerably." Although it is common for people with ADHD to "lose time," it is generally not perceived as positive. These study participants engaged in a significant amount of work to keep track of clock time. When asked how aware of clock time he was, Will replied, "I am always looking at clocks to see where I am at." When asked how often she checked the clock, Sue said, "All the time. Most of the time. It depends on the day, but at least 50 times a day." In Marissa's case, if she did not pay close attention, she completely lost track of time saying, "If I have to, I pay a lot of attention to it, but if I don't, I really have no idea." Rosa "is always aware of what time it is," and Elie reported, "I always check it." Sarah found it odd that she is very punctual, sets alarms to remind her of

things, and checks the alarm repeatedly, but still feels like she is “always in a rush.” Will saw these frequent clock checks as a way to compensate for his ADHD, referring to himself as having OCD. Several other students also mentioned “being OCD” though they were not diagnosed as such. Will said:

> Um…well it's different. Sometimes a good portion of my day, I know what time it is. That's probably just my OCD though. I’ve become OCD to compensate from ADHD… It’s a self-diagnosis.

There were different motivations for staying closely aware of clock time, but most were associated with a feeling of anxiety related to not knowing the time. Elie expressed the need to know details of the day based on time, using the example of the weather. When asked why she felt the need to keep close track of clock time, she said, “I don't know. It makes crazy not to. I need to know what it is, like what's the weather going to be like at what time?” According to Rosa:

> I have to because if I don't, I become very anxious and nervous. Um, I like to take naps for example, but I always put several alarms on so I will not oversleep, because that feeling when I know I needed to do something, but I overslept it is horrible.

Dylan also expressed anxiety if he didn’t know what time it was. If he didn’t have a way to check the clock himself, he asked people around him for the time. He elaborated:

> Yeah there are times when I've asked people if they can tell me. That happens to me because my phone's been dying, or I’ll be sitting in my class and my teacher doesn’t have a clock up. Usually my brain will be like, hey here's the amount of material left. If this and this take this much time, we might make it out of here five minutes early and then I'll dedicate focus and energy accordingly.
>
> I don't even know how to explain it. I really hold onto time like to an extreme…to the point where my thinking completely changes once I've reached a certain part of the day. When I have stuff to accomplish, I base my entire day around it.

Dylan’s expression of holding on to time implies a feeling that it is going to get away from him, a common experience with the study participants. He also speaks of dedicating focus and energy

according to the amount of time left, as if he knows he has a limited amount of both. Diego saw himself as both being very aware of time but also unaware, saying:

> I feel like I am always aware of time because everything I do is on a timeframe, but it doesn't mean that I don't just waste time. I must wake up at a certain time and make sure that happens every single day. I probably wake up at 4:00am, and I'm aware what time it is. Then at some point, I'll space out and fall back asleep. And then 6:30am will roll back around and we're out of the house by 7:15. If I must be at work that day, I'm very aware of the time. But if I get caught in a conversation with my friend or somebody at the bus stop, the time just disappears and then I'm late. I've had a big issue with being late in the past. Always tardy. Always late to work. So now I try to control that portion of it, but throughout the day, I don't really know what time it is. It'll be like oh that went fast or oh it's going slow until it's time to go home.

It was not at all uncommon for students to contradict themselves when speaking of time. Their awareness and experience of time changed frequently throughout the day, often catching them off guard.

MANAGING THE ALIGNMENT

Creating and maintaining a schedule for completing college coursework requires a complex and coordinated effort. A three-way alignment between the inner experience of time, standard clock time, and the schedule is needed for adherence to be accomplished. The student must be aware of the scheduling requirements, plan the associated activities so they coordinate with standard clock time, and be able to follow through with the activities associated with the schedule. Not only must the three-way alignment occur, it must take place at the right time. This requires a degree of awareness that is sometimes challenging for someone with ADHD.

Awareness and Executive Functions

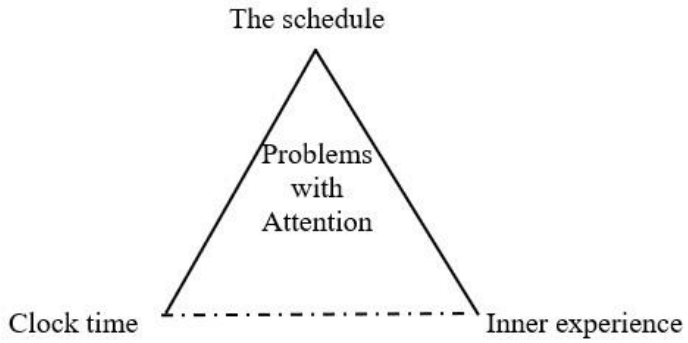
As I analyzed the interviews, themes emerged that I recognized as being related to executive function theory. The focus of this study was on time, but the students consistently used words such as attention, focus, and memory. The literature on ADHD shows a connection

between time and executive functions. The more I organized and interpreted the interviews, the more I saw the linkages.

According to theory, executive functions are a group of skills that allow a person to focus on multiple streams of information at the same time and adapt to cues from this information as needed. These skills are first learned in childhood and change with time. They are interrelated and require coordination (Jurado and Rosselli 2007). Since ADHD usually first presents in childhood, deficits in executive functioning can be expected and often persist into adulthood. Various models of executive functioning exist, but core abilities related to executive functioning are working memory, mental flexibility, and self-regulation. Working memory involves the ability to hold a memory in place while other information is coming in. Mental flexibility helps sustain or shift attention and focus as needed. Self-regulation is the ability to set priorities and to control impulsive actions (Center for the Developing Child 2014). Thomas Brown emphasizes that the executive functions of activation, focus, memory, emotion, effort, and action are interrelated and continuously working together, rapidly and outside our conscious awareness. Lezac (2012) describes executive functions as having four components: (1) volition, (2) planning, (3) purposive action, and (4) effective performance. These models provide useful perspectives to describe themes that emerged from the student interviews. The following analysis will address the tasks of attention, focus, and memory as they influenced the student's ability to maintain the three-way alignment of the schedule, inner experience of time, and clock time.

Problems with attention. McCoy described three ways in which misalignment of the schedule, the inner experience of time, and clock time can occur. I found that each is closely associated with and dependent on the executive functions noted above. In the first instance of misalignment, a person knows the schedule, recognizes the need to complete the work associated

with it, and possibly even plans for it. The person may be thinking about the work activities but then get "lost in thought." The consequence is that he or she loses awareness of clock time. This first type of misalignment relates most closely to a problem with attention where there is a disconnect between the inner experience of time and clock time. Applied to McCoy's example of misalignment, it can be visualized this way, with dotted lines representing the disconnect:



Attention deficits contribute to problems with time perception (Brown, 1985). Zakay (1992) views time perception as a function of the amount of attention allocated to its processing. A person with a limited attention span and poor working memory, such as is seen with ADHD, allocates more attention to nontemporal functions, thereby having less resources available for attending to time awareness and processing, making the assessment of time less accurate.

According to Brown (2013), getting work done involves organizing tasks and materials, estimating the time it will take to complete the activity, prioritizing tasks, and beginning the work. People who have ADHD often struggle with all of these. They describe chronic problems with attention, losing track of time, misjudging how long it will take to complete a task, and missing deadlines. Although many of the students believed they paid close attention to time, it did not usually help them stay aware of it. This was described by Russell Barkley (2008) as "time blindness." Time blindness is not just a matter of 'feeling like' time is moving quickly or slowly. It's a failure to view time as linear, concrete, or even finite. Diego is a good example of

this. He explained that he would be talking about one thing when something else popped into his head from hours earlier. He then introduced it back into a conversation without explanation. The people he was with had no idea what he was talking about. He explained:

> I thought about how, a lot of time, I don't stutter, but I tend to talk in fragments, because to me, I've already said that sentence once before, but to other people. I didn't even say a full thought. So, I'm already going so fast and snapping off and doing whatever, so I don't want to say it slows down to, like, a superhuman point. You know what I'm trying to say?
>
> The other day, we were talking about the Superbowl and how we are glad the Falcons made it. And then all of a sudden, I go, them new Chalupa's be banging bro. And everyone says, what are you talking about? We weren't even talking about that. And I'm like no, you remember like, and then I have to go back and explain to them the train of thought and remind them that 5 hours ago we were talking about Taco Bell, and I had a thought, and then I forgot about it, but then you said something just now about Julio Jones doing that little dance, and Julio reminded me of Chalupas. I love those moments, but it's hard to explain to people whose brains just don't work that way.

Elie also talked about this type of nonlinear thinking:

> That's funny, I always used to get shit about starting sentences and not finishing them and then mid thought, something else would come in so I would insert that, but then, if you let me keep going, eventually I'll come back around to it

Therapists Donald Davis, MD and Susan Davis, CSW, conduct workshops on ADHD for couples and families. In an interview with Rick Hodges (2004), Dr. Davis discussed their work with couples. In one exercise, marital couples took part in a time exercise. One partner had ADHD and the other did not. The results illustrate the differences in how each perceived time related events (Hodges 2004). The spouses without ADHD saw events in linear form, recalling them sequentially and with considerable accuracy. The spouses with ADHD did not see or recall events so much as "feel" them. When asked to recall events, they were often out of order, leading the researcher to conclude that people with ADHD do not sequence events as others do, seeing them as a diffuse collection of occurrences that are intertwined with recollections, emotions and other activities, all competing for the person's attention.

Despite their best efforts, it was not unusual for the students in this study to lose awareness of clock time, causing them distress. Despite trying to stay aware of clock time, one student reported, “I find that when I don't pay attention to time, I lose a lot of time. Yesterday, I was Skyping with someone from 12 to 1. I thought it was maybe an hour, and it was four. I don't know what happened to it.” For Sue, hours and entire days can pass without her awareness:

> That definitely happens to me, especially with those videos. I usually give myself a start time, like I'm starting at 12. But then I end up starting it at two and a couple of hours have gone away and I'm not even really aware of the fact that time is going by.
> Um, okay so, this is something that I have a problem with. So usually I try to wake up early or what I think is early. I used to get up at six or seven because I was so used to the schedule from high school, but now that I'm not really doing anything, I wake up at like 9 or 10. But by the time I wake up and I'm actually ready to do anything, it's like 12, and by the time I manage to sit down to do work, it’s like 5 o'clock.

Kara talked about how she has so much to do, but then the day is over, and she has little awareness of what happened to the time. She reported:

> It honestly depends on the day. Some days I’m more aware than others. From the second I get home, I have so much to do by this time or that time. Some days I am completely unaware. I will drop my daughter off at Pre-K by 8:15am. Before that, I'm supposed to make them breakfast, clean up the kitchen, take the dog out, all of which takes me an hour to do. Then I’ll be walking around the house scrolling through Facebook and I’ll lose track of time and then by the time it's 11:30am, I’ll be like, oh my God, I've done nothing.

Students also described never having enough time. Ally said, “It just seems like I never have enough time, especially when I’m not doing anything.” Sue felt like time was “running away” from her saying, “I thought that I had enough time. I thought it was this o'clock and instead it was that o'clock.” After describing a day that did not seem especially busy, Kara said, “I feel like I never have enough time.”

Others described having plenty of time but getting lost in thought and losing awareness of clock time. For Diego, this could last for hours.

> I have to be doing something, because I know for me personally, it's not even TV. If there is a chair in my room, I can sit in that chair and just get into a thought and just be lost in my mind for 5 hours. And then my mom will go to work, come back, and be like, you've just been sitting here. You haven't moved. And I was just like hey man, I'm just looking straight ahead. And she's like, you good? And I'm like yeah, I'm fine. I'm just thinking about this thing. And she'll ask me what it was, and then I'll just move on to something else.

Diego described another instance when he "spaced out," and how he tried to avoid losing time:

> I mean, I have, it's easy when I'm doing something. Like today, I won't even have time to space out. Once I space out, I'm out. But like today, I still gotta go home and study and do homework so I'm not going to have time to. But tomorrow, I have free. Mondays and Fridays are my days off. I will just be sitting there. I might not see a clock the entire day. My mom is like, it's 7:30 at night, what have you been doing all day? I was looking at this thing, and one thing led to another thing, and next thing you know, I will have read a whole book.

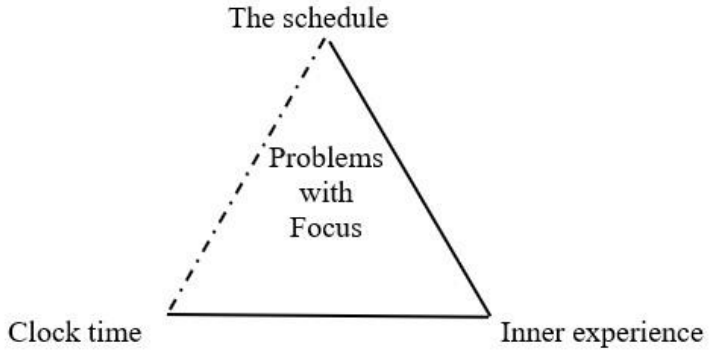
He did not always realize that he was spacing out saying, "I just don't understand why I can sit there for 15 minutes and stare as opposed to doing what I'm supposed to do."

Action often did not occur until the student suddenly became aware of clock time and recognized the urgency. McCoy calls this the "snap-into-alignment experience." Everything came together, but often too late. For example, Diego set a very specific schedule early in the semester to avoid these "Oh no!" moments. Referring to his disciplined schedule on class days, he said:

> But if I hadn't of done that, when I woke up this morning, I would have saw that it was 10 o'clock and I would have gone back to sleep, woke up at 12 and be like, oops, I'm late for class, anyways, go back to sleep, wake up 10 minutes later like, Oh no, I'm late for class and I get there for the last 10 minutes.

Maintaining the three-way alignment requires that a person pay attention to time and stay aware of it. It also requires an accurate perception of time and the events associated with it. Observations made by this researcher support a disconnect between the inner experience of time and awareness of clock time related to a problem with attention.

Problems with focus. A second of form of misalignment, according to McCoy (2009), is when someone is very aware of clock time, but has trouble "orienting to its relevance for other activities" (p. 135). As seen earlier, many students reported a near obsession with knowing what time it was, but the schedule slipped out of awareness because of competing thoughts or external demands. This type of misalignment relates most closely to a problem with focus, where there is a disconnect between clock time and the schedule. Applied to McCoy's example of misalignment, it can be visualized this way, with dotted lines representing the disconnect:



People with ADHD are easily distracted by their own thoughts and things going on around them (Brown 2009). Many of the students in this study reported having a plan, the best of intentions, an inner awareness of the importance of time, and at least some limited awareness of clock time. However, they still had difficulty holding something in awareness if it was not right in front of them. Time dependent work is more susceptible to distraction. In studies of response inhibition (the ability to ignore distractions), reaction time variability was the single greatest difference between the ADHD participants and control groups, supporting a lack of focus as a key contributor to other symptoms of ADHD. People who cannot maintain focus lose their place at some point in the normal cognitive processing chain. If the ability to focus is closely related to time, then problems with time may significantly contribute to other symptoms of ADHD.

Every student in the study talked extensively about becoming distracted and trying to keep or regain focus. When asked about the challenges of college, Kara said, “Um, managing my time and just trying to make sure that I get my assignments in on time. I procrastinate a lot and really don’t stay as focused as I should, and I wander off doing different things.” Samantha reported being distracted by external events as well as her inner thoughts. In her statement below, she seems to view distraction as a passive thing that “just happens.”

> I mean, there is life that gets in the way. I could do my homework, but I could also do it this time, this time, and this time, and, you know, spend time with my friends or the person I have been with for two years. I had a whole plan on how I was going to get my homework done this week and everything went to plan, and then all of a sudden life just happens, and it throws the whole schedule off. It’s hard to say no to the feelings of like, oh yeah, I can do it later.
>
> Sometimes my mind is just too distracted and then I’m like ok, I need to just calm down, but sometimes my mind is racing so fast that it’s hard to do anything at all, and it’s not even a motivation thing, it’s just that my mind is thinking about so many other things at the same time, and it could be anything from the new president to this café.

Elie reported that, “Just people talking throws me off,” while Rosa became distracted if she is not interacting with people:

> When I'm talking and interacting, I'm fine. When I'm sitting, I cannot stay focused. I cannot concentrate and then I gradually feel like I'm numb, like physically and emotionally, my brain is just, it's crazy. So, I can sit there and stare at pages for hours and not pick up on anything because my mind is everywhere else

Students in this study often talked about how their brain worked or didn’t. In the excerpt above, Rosa said, “my brain just…it’s crazy.” She couldn’t explain what about her brain she was trying to describe, but she believed her brain just didn’t work like it should. Diamond also talked about not being able to pay attention to some things when other things were using her “brain activity.” She said:

> Um, being able to focus on many different things at the same time. So last quarter was difficult for me because I took political science which just took all of my brain activity, especially with the timing. So, it was hard to focus on anything else. Luckily, I was still

> able to get to everything else, so I didn't fail anything. But it is challenging to give as much attention to the things I needed to give attention to as far as studies go, and then there's this random political science class.

Some students reported feeling like they had little control over their ability to focus. Kara explained, "Honestly, when it comes to my ADHD, I feel I have no control over my thoughts, and I am all over the place." While Diego also felt this way, he spoke of the *need* to focus and take responsibility in order to succeed:

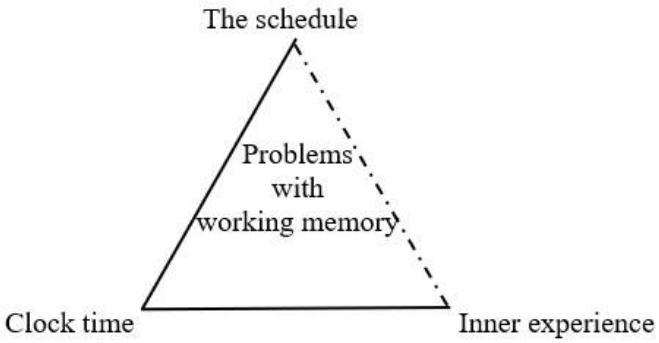
> I guess you have to be more focused. There is no one to hold your hand. You gotta focus with yourself. You have nobody to tell you that. You are supposed to do that yourself. It's really about your drive and determination to do something, and if you don't have that then it's all over. There is no way for you to succeed.

While distractibility is a hallmark symptom of the disorder, people with ADHD often experience prolonged, intense periods of concentration called hyperfocus. Once engaged in an activity of interest, the person can remain engaged in that activity and tune out all distractions. In an earlier section, I provided examples of students "losing time." They described long periods of time they could not account for. Hyperfocus is another form of "losing time." Dylan described his experience of reading a book he liked, saying, "one thing led to another thing, and next thing you know, I will have read a whole book." This can be an advantage to the person with ADHD if the schedule requires an activity perceived as desirable, but problematic when it distracts from tasks related to a schedule of school activities. Will demonstrated how hyperfocus is both beneficial and problematic, in both cases influencing his awareness of time.

> Yes, sometimes I get so hyper focused, but I forget what time it is. Once I really get focused on something that's important to me, I can lose track of time. At work I have routines and processes I do. However long it takes me to get that done, I get it done. I'll miss my lunch. When I'm at home, I might start playing a videogame and before I know, it's midnight and my wife has fallen asleep and she's mad at me.

Maintaining the three-way alignment requires that a person focus and manage distractions in order to coordinate the schedule with clock time. My observations support a disconnect between the schedule and awareness of clock time related to a problem with focus.

Problems with working memory. McCoy's third description of misalignment occurs when there is a failure to recall the schedule or its significance. This type of misalignment relates most closely to a problem with working memory, where there is a disconnect between the inner experience of time and the schedule. Applied to McCoy's example of misalignment, it can be visualized this way, with dotted lines representing the disconnect:



Central to the concept of time is that of working memory, described earlier as the ability to hold a memory in place while other information is coming in. It also involves the ability to recall the past, be situated in the present, and make predictions about the future. There is a strong association between time perception and working memory (Lee and Yang 2018). For behaviors to be linked across time, a person must retain information from the past and anticipate the next step in a time sequence that prepares them to act (Fauster, 1985). Working memory deficits are apparent in people with ADHD, making it difficult to adhere to time and schedule expectations (Rabiner 2008). People with ADHD often report that they have a good memory for things that happened long ago, but significantly more difficulty remembering what just happened, or what they were going to do next. They describe struggling to keep one thing in mind while attending

to other tasks. In addition, persons with ADHD complain that they cannot access memories of what they have learned when they most need them (Brown 2013).

Sarah talked about having a lack of attention, focus, and memory. Although she attributed her problems primarily to a lack of focus, she actually described a problem with working memory:

> I'm a busybody so it's very hard for me to sit down and focus and sometimes my sister will come and get my kids so I can write an essay or a paper and have it turned in, but still sitting at the computer and trying to pay attention, like I can read something over and over and then not be able to remember what I just read. It's the focus and trying to absorb everything.

Rosa knew she would do better if she spent more time studying, and if she started earlier, but was afraid she would forget what she learned if she started too soon. She said:

> I do feel like I'm more productive when I do it all at once. I feel like I will forget what I was doing if I don't do it all at once. If it's not due until next week or the week after. For example, I have my cardiology exam on April 12 and that's the Wednesday after spring break and I know I'm not going to be doing anything during spring break. I'm not going to be studying. I end up walking around with the book and never opening it, but then I will get back from spring break and I will spend Sunday and Monday off doing it all at once. I probably, I don't know, I will make a B. I would make an A if I did more work and put more time into it, but if I do, I will forget it anyway.

Sue tried to remember important things by putting reminders in her phone. Sometimes, though, she could not recall what the reminder was about. Or, she acknowledged the reminder, got distracted, and forgot she ever checked it.

> As soon as I know what I'm supposed to do, I set the reminder then and there, but I do have a thing where I forget what else was there and I just forget completely, but then it comes back to me randomly. When that happens, that's when I put it in my phone. I always get distracted. I just do it whenever I can.

Sarah expressed frustration with her poor memory, describing how her problems with working memory affected her in nonacademic settings as well.

> I can't even sit down and help my kids with their homework. I try but if it's too complicated for me, and they are 12, 7, 6, and 4, so I'll be like okay. We will read

> something, and I will ask them questions. I can't do that because I'll read the story, but I can't even remember what the story was about by the time we get to the end of it. My husband has to do that with them and that's sad because I should be able to help my children with their homework.

Elie reported always being aware of time. She frequently checked her phone. It "made her crazy" not to know what time it was. Still, when asked if this kept her from forgetting things like appointments, she said:

> No, I do [forget]. I know. I don't know how it is possible and I think that is what always threw me and my parents off. I am so conscious of certain things. My parents will send me to the grocery store to get peanut butter and then I won't remember to get peanut butter.

Even though she knew what she was supposed to do, she forgot, attributing this in part to her constant efforts to stay conscious of things. The *work* of remembering impeded her actually remembering. She explained, "I'm always thinking about things like, I have to do this tomorrow. I have to do that tomorrow. So, then there are times that I completely blank. Important things too." While she was aware of time, there was not always a connection between what she knew she had to do, her ability to hold it in memory, and her perception of time throughout the day.

CONCLUSION

The work of adherence, whether to a schedule of pill taking as in McCoy's research, or to the requirements of college course work in this study, necessitated a three-way alignment between the schedule, inner experience of time, and clock time. This work required attention, focus and memory, which interacted and influenced the components of the three-way alignment in complex ways. McCoy's three-way alignment provided a valuable starting point from which to begin to make these connections. As expected, much, though not all of McCoy's model applied to the work of the students in my study. While analyzing the interviews, and examining research on ADHD, I looked for ways in which McCoy's model, existing literature on ADHD,

and the student interviews informed each other. I drew several conclusions from the data presented in Chapter 4.

At the beginning of the semester, most students attempted to plan how they would execute their schedules, but as additional variables presented throughout the semester, it became more difficult for them to consistently adhere to the course requirements. The problem was not with how they conceptualized the schedule, but in its execution, which required a degree of mental flexibility that most found challenging. Ironically, the farther in advance a student tried to plan, and the more exhaustive their efforts, the less successful they ultimately were, reinforcing a connection between the student's experience of time and executive function challenges

The students in this study reported that they did not experience time the way others did. They had difficulty articulating what was different, but they believed that their experience was not "normal." This sometimes produced an inaccurate perception of time leading to inefficient behavioral responses and problems with adherence to the schedule.

All the students expressed a desire to stay aware of clock time, often checking it frequently throughout the day to avoid the anxiety of not knowing, believing that an awareness of clock time improved their chances of remembering the schedule and getting things done. The students engaged in significant work in order to keep track of clock time. Despite these efforts, they were often unsuccessful.

The students frequently contradicted themselves when talking about time, for example, saying they were always aware of time, then a few minutes later reporting they had no idea what time it was. They never noticed this inconsistency and were surprised when I brought it to their attention.

When embarking on this study, I believed that McCoy's paradigm of a three-way alignment would help explain the difficulties sometimes experienced by college students with ADHD as they attempted to adhere to a schedule and complete their coursework. It did, but it also became clear that attention, focus, and memory intersected and coordinated with the three-way alignment in ways that both helped and hindered them.

I was not surprised that attention played a significant role in understanding the students' experiences. In this case, attention largely influenced the intersection of the inner experience of time and standard clock time. Students reported compulsively trying to stay aware of clock time, but often losing track despite their best efforts. Attention or inattention to clock time served as both a help and a hindrance to getting the work done. By attending to the clock, the students were more likely to remember to do things. However, constant attention to the clock added another layer of work that sometimes served as a distraction. In either case, the students' inconsistent awareness and experience of clock time was uncomfortable for them, often causing considerable anxiety.

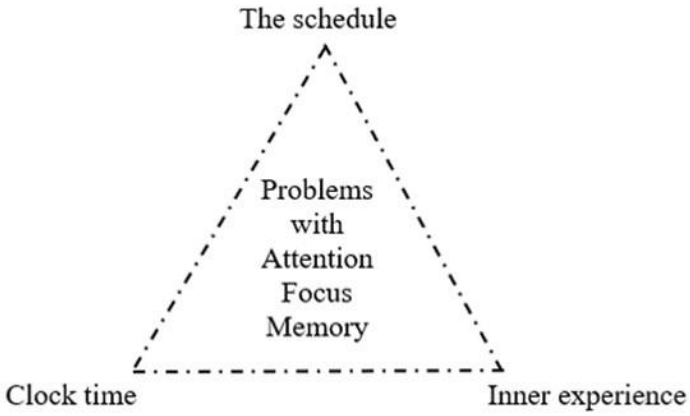
I was also not surprised that the ability to focus was crucial to the three-way alignment, largely influencing the intersection between awareness of clock time and schedule. The students understood the importance of clock time as it related to the schedule, but had difficulty keeping them both in awareness at the same time in the face of multiple competing internal and external distractions.

The role of memory, especially working memory, was critical to maintaining the three-way alignment. Memory impacted all components of the alignment and the relationships among them. Most significant was the role memory played in the intersection of the student's inner experience of time and the schedule. To adhere to a schedule, one must remember it and its

significance, requiring yet another alignment of the past (long-term memory), the present (short-term memory), and the future (anticipated events). While memory influenced the students' experience of time, there was also a time dimension to remembering and forgetting. Having established that people with ADHD are often not linear thinkers, I was not surprised that students in this study had difficulty remembering the schedule and evaluating its significance at any given moment.

The students were aware of their problems with memory. They attempted to compensate by minimizing their reliance on memory and employing strategies to help them remember. Unfortunately, the strategies themselves often required a more functional working memory than they had at their disposal. The students universally described their problem with memory as one of the most difficult aspects of their college experience.

Just as there is a nonlinear component to the three-way time alignment, attention, focus, and memory must converge to get the work done. These interacted and influenced each other. The previous diagrammatic representations illustrated how each executive function affected specific components of the three-way alignment. I envisioned them this way after repeatedly searching for patterns in interviews. Of course, none of the components can be viewed in isolation. Seen more holistically, the relationships can be conceptualized by the diagram below, where attention, focus, and memory are central to maintaining the alignment, suggesting the need for a six-way convergence for optimal functioning. The dotted lines represent the disruption caused by three executive function impairments associated with ADHD.



Despite their challenges, the students showed considerable resilience and persistence. They performed significant work above and beyond the classroom assignments. The work of maintaining the alignment was unrelenting. Trying to compensate for the executive function problems further challenged the students' ability to use those cognitive processes effectively.

Chapter 5 builds on this model by examining the strategies used by the study participants to maintain the three-way alignment and adhere to the schedule. It will include a discussion of the work involved in using these strategies and the assistance provided by the Office of Disability Services.

CHAPTER 5

Strategies and Tools

"I just figured it out on my own."

As presented in Chapter 4, adhering to a schedule of college coursework requires a three-way alignment between the schedule, the student's inner experience of time, and awareness of clock time. The components of the three-way alignment intersect with attention, focus, and memory in complex ways. Despite significant challenges, the students in this study were persistent in their efforts to adhere to the schedule, requiring them to perform additional work above and beyond that demanded of the coursework. Having established that the standardized system of time used in modern Western society is necessary and does not change or adapt to the needs of individuals (Durkheim 1965; Schutz 1979), the students in this study had to adapt their inner experiences of time and awareness of clock time to the rhythms of "world time" (Schutz 1979). They incorporated strategies, tools, and accommodations that put additional demands on the students' attention, memory, and focus, causing additional work that they were often ill-equipped to handle. The students shared stories about their experiences, challenges, and frustrations with the very tools that should have aided them. Sometimes they helped. Just as often, they did not.

I organized the strategies used by students to maintain the three-way alignment and adhere to the schedule into three categories: (1) institutional accommodations and support, (2) treatment strategies, and (3) organizational and time management strategies. Departments within the college such as the Office of Disability Services and the Learning Success Center provided institutional accommodations and support. For those who used these services, it helped them navigate the time and structural requirements of the college. The specific ADHD

accommodations were, as described by Disability Services Coordinator, designed to level the playing field for students with ADHD without giving them an unfair advantage. The accommodations were generic and did not always address the specific challenges faced by these students. None of the students had tried other forms of treatment, or even knew what those might be. Two had been in counseling, but not for ADHD. All participants reported that medication was effective in improving focus, attention, memory, and energy, however, most were not using medication at the time of the interviews. All had tried common organizational and time management strategies designed to decrease work, improve productivity, and adhere to a schedule, with mixed results

The students in this study expressed how much effort it took to even try to use the tools, strategies, and accommodations. These aids should have made adhering to the schedule and completing the coursework easier, but that was often not true for the study participants. The students believed they needed these supports to adhere to the schedule but using them added another layer of difficult work in the present to achieve future goals. They accepted this form of work as a necessity, albeit a very burdensome one.

In Chapter 5, I discuss the institutional and individual strategies, tools, and accommodations used by the students to maintain the three-way alignment, overcome executive function challenges, and get the work done. Dorothy Smith (2005:151) defines work as "what people do that requires some effort, that they mean to do, and that involves some acquired competence." Work knowledge is the person's experience of work and the coordination of this work with the work of others. Using information gathered through interviews and texts, I examine the everyday work of adherence from the standpoint of college students with ADHD. I also explore how this work links to social and institutional processes and activities. I begin by

discussing the local and extra local sites of action impacting the provision of institutional services to students with disabilities, including ADHD. I examine the work practices of the Office of Disability Services, along with the policies and procedures for getting ADHD accommodations, followed by an exploration of the individual strategies used by the students as they tried to adhere to time and scheduling requirements and complete their work.

LOCAL AND EXTRA LOCAL SITES OF ACTION

I begin with an exploration of the local and extra local sites of action influencing the students' work of adherence in one academic institution, gaining a sense of how things work by identifying the connections between the local settings of everyday life and extra local forms of ruling and social organization. The term *local* refers to everyday life experiences. *Extra local* refers to complex social institutions and organizations (e.g. government, education, and medicine), historically characterized by impersonality and objectification (Spence 2003; Smith 1990). In the context of institutional ethnography, the word *institution* refers to "coordinated and intersecting work processes taking place in multiple sites" (Devault and McCoy 2002:753). For example, rather than viewing a college as a stand-alone organization, it interconnects with various other actors, such as its governing board, state lawmakers who influence educational policy and allocate resources, and the federal government. This entire web of connections is the "institution." The intersection of these activities in multiple sites comprises what Smith calls the "ruling relations" of society (Smith 1987). DeVault and McCoy (2002:752) offer the following explanation of ruling relations: "In contemporary global capitalist society, the 'everyday world' (the material context of each embodied subject) is organized in powerful ways by translocal social relations that pass through local settings and shape them according to a dynamic of transformation that begins and gathers speed elsewhere."

The concept of social relations does not refer to specific relationships, such as husband-wife or teacher-student. Instead, it is a way of looking at what people are experiencing at one local site and linking it to others. Rather than looking at institutions as representing specific social organizations, Smith (1987:160) sees the institution as an "intersection and coordination of more than one relational mode of the ruling apparatus." Viewed from this perspective, a college is not an independent entity; it is a "node or knot" in an organizational system informed by the larger social narrative of what is expected from colleges by those who set the expectations. If those who create the larger narrative believe that colleges and their students should be informed, orderly, and efficient, the college will construct policies to coordinate those extra local beliefs with their local policies and actions to create a "functional complex" (p. 572). As an example, the federal government (a part of the ruling apparatus), mandates equal opportunity for students with disabilities through the Americans with Disability Act. Institutions of higher learning then seek to coordinate their own practices with the ideology of the ruling apparatus. Individual colleges will develop policies that align with the norms of higher education and laws regulating disability in the larger society. The final challenge for individual colleges is to translate these policies into a procedural form and language that simultaneously upholds those ideologies while assisting the individuals who seek help for a disability. According to Smith, "Integral to the coordinating process are ideologies systematically developed to provide categories and concepts expressing the relation of local courses of action to the institutional function" (p.160). In colleges and universities, the Office of Disability Services is tasked with coordinating multiple sites of action and ideologies. The college has its own set of practices; however, it is an institutionalized representative of the extra local agencies of social control dictating the authorization procedures required in the provision of accommodations for ADHD and other disabilities.

INSTITUTIONAL ACCOMMODATIONS AND SUPPORT

The first official services for college students with disabilities began in 1948 at the university of Illinois when Tim Nugent started the Division of Rehabilitation Education Services to assist veterans of World War II. There were few others until after the Rehabilitation Act of 1973 required entities receiving federal funds to accommodate individuals with disabilities (Haller 2006). Even then, few colleges broadened their programs and services until the ADA was strengthened in 1990 and 2008, when the legal definitions of 'disability' were broadened in scope.

Section 504 of the Americans with Disabilities Act of 1990 (ADA) states that no otherwise qualified individual can be excluded from any program or activity receiving federal assistance. The Individuals with Disabilities Education Act (IDEA) governs how state and public agencies provide early intervention, special education, and related services in elementary and secondary schools (US Department of Education, Nd.). This legislation requires students with disabilities to have an Individualized Educational Plan (IEP). Under IDEA, the burden of evaluation and the provision of "special education" services fall on the schools. The requirements are different for colleges. In higher education, "reasonable" accommodations must be made for those with disabilities, including ADHD (Smith and Wilson, 2003). However, colleges are not required to provide evaluation, counseling, tutoring, or personal aids (Office of Special Education and Rehabilitative Services 2017), nor must they "fundamentally alter" their programs or incur "undue hardship" (U.S. Department of Justice 2016). The ADA does not require alterations to programs that result in lower academic or technical standards or that cause the college undue financial hardship" (Thomas 2000:255).

What constitutes “undue financial hardship” is not well defined and is an ongoing controversy (Haller 2004). There is no specific federal or state funding for disability programs in higher education. Therefore, colleges and universities seek to comply with the law, while minimizing disruption and controlling the costs associated with implementation (Jung 2003). With the numbers of students with disabilities in higher education growing, colleges are challenged to find the funding for these services.

Under ADA, an individual with a disability is someone who: (1) has a physical or mental impairment that substantially limits one or more major life activities; (2) has a record of such an impairment; or (3) is regarded as having such an impairment (U.S. Department of Justice 2016). The ADA does not list specific disorders, instead focusing on the functional consequences of the disorder. The original act was amended in 2008, after several legal challenges sought to limit its scope (Heekin 2010). The amendment clarified the ADA definitions and criteria for inclusion. According to the U.S. Equal Employment Opportunity Commission (2008), The act, “emphasizes that the definition of disability should be construed in favor of broad coverage of individuals to the maximum extent permitted by the terms of the ADA and generally shall not require extensive analysis.” This amendment solidified the inclusion of ADHD as a protected category (Heekin 2010). As a protected category under ADA, the law affords people with ADHD certain entitlements and accommodations (Conrad and Potter 2000).

The Office of Disability Services

Students seeking accommodations for Attention Deficit Hyperactivity Disorder in colleges or universities are typically served by departments dedicated to assisting students with

any kind of covered disability. General guidelines for Student Disability Service offices include:

1. Establishing and publishing reasonable and sufficient guidelines.
2. Keeping abreast of new technologies and instructional methodologies that assist students with disabilities.
3. Employing one or more individuals with knowledge of disability law and assessment of disabilities in adults.
4. Ensuring that the office is sufficiently staffed and adequately funded.
5. Engaging in in-service training of staff and faculty.
6. Timely handling of requests for information and accommodation.
7. Promptly investigating noncompliance or discrimination (Thomas 2000:257).

In the local setting for my research, this entity was called the Office of Disability Services. In subsequent sections, I will show how the Office of Disability Services complied with the expectations noted above, and the challenges of doing so. The scope of the Office of Disability Services at this community college was limited compared to large universities. Its primary purpose was to facilitate accommodations for documented disabilities, ADHD among them. According to Ms. Beasley, one of the Disability Services Coordinators I interviewed, "Learning disabilities are the highest number of students and ADHD is probably our second largest group. ADHD is hard because it's so comorbid with so many other things, whether it's a learning disability or depression or anxiety or something else going on. It's very rarely just ADHD. That's what I feel like I've come across." Although her perception was that students who presented with an ADHD diagnosis often had comorbid conditions, she had no actual data about their population. However, research shows that up to 75% of adults with ADHD have a comorbid diagnosis (Ramsay and Rostain 2007) such as anxiety, depression, substance abuse, and other disorders (Chen 2018; Wasserstein et al. 2001; Watkins 2002; Wolraich et al. 2005). There is less comorbidity with learning disorders, although ADHD is commonly categorized with them for research purposes, making it difficult to determine the appropriateness or effectiveness of accommodations (Jansen et al. 2016).

Staff and the physical setting. The Office of Disability Services staff changed over the course of the study. My initial interview was with a Disability Services Coordinator, Ms. Beasley, who left the college about a year into the study. She had been running the department, largely by herself, for 15 years. When she left, the structure changed, and additional staff were hired. This was primarily due to the merger of several regional community colleges. At the study's end, the staff included:

> Disability Services Coordinator: The coordinator oversaw the entire department for all campuses and worked out of the main campus. Responsibilities included managing the staff, completing intakes, proctoring tests, meeting with students, keeping track of equipment inventory, and approving the budget.
>
> Disability Services Specialist: There were two Disability Services Specialists. They traveled among the different campuses as needed and were responsible for doing intakes, proctoring tests, and meeting with students.
>
> Disability Services Assistant: The Disability Services Assistant moved from campus to campus as needed, processing documentation and student records, scanning files, and proctoring tests.
>
> Part-time Employees: There were several part-time employees including sign language interpreters, captionists, and reader/scribes.

Despite the breakdown of job responsibilities, the coordinator said they "kind of divide and conquer depending on the students' needs and when their appointments are. When they need testing. I try to cover as many of the new intakes as I can. The specialists also help with intakes and then all five of us help with testing. So, whenever a test needs to be proctored or read out, all of us can do that."

The specialists, assistants, and part-time employees all reported to the Disability Services Coordinator. The Disability Services Coordinator reported to the Executive Director of Student Engagement who reported to the Vice President for Student Affairs. There is a person at the central office of the state system over special populations and disability services. There was no

direct reporting relationship, but if a problem were to escalate beyond the college level, it would ultimately go to this person. No one could recall that ever happening.

The Disability Services office was in the Student Services office suite. There was a check-in desk, a waiting area, and individual staff offices. There was one lab dedicated to testing at the main campus and another on a satellite campus. The labs had five seats, desks, and computers for student use. The labs contained other equipment and software for non-testing purposes. On the smaller campuses, staff had to reserve a traditional classroom for testing, which did not have any special equipment or software. About the physical space, the coordinator said:

> I need more testing space at the main campus and would love to have a dedicated space on all the other campus locations. I do think we have enough space to meet the demands of our students for now. However, I anticipate our population to grow considerably over the next 5/10/15 years, so sooner or later there will be a need for a dedicated larger lab on each campus to meet the demands of student testing. Currently, during finals week, we test anywhere from 10 to 25 students per day. Our current layout does not provide enough space to properly schedule students. We compensate by borrowing classroom space during finals week.

Work processes. I obtained information about the work processes of the Office of Disability Services from the coordinator interviews and my own observations. The first coordinator interview with Ms. Beasley, took place prior to the student interviews. She was initially slightly hesitant to share specific information. After providing her with an abbreviated copy of my proposal, and building rapport, she provided a great deal of insight into her philosophy and the departmental work processes. Until a recent merger of several community colleges, she ran the department herself with the help of an assistant, Beverly, who covered a satellite campus. She emphasized the difference in their workloads saying, “My workload is bigger than hers. If you look at the statistics on the website, what you'll see is that I have 854 students and Beverly has 352.” She wasn’t sure how many of those were active students since she wasn’t, “good at going and closing people out, but that’s one of the things that we have to

do." Historically, the primary purpose of the Office of Disability Services was to process documentation and provide accommodations. At the time of the first interview, there was a new emphasis on student tracking and retention. According to Ms. Beasley:

> The big focus for us is retention, so I'm supposed to contact all of the students that we had spring of 2015 if they're not here in spring 2016 and find out why they're not here and be as specific as we can. Did you graduate? Did you transfer to another school? Did you drop out? Why? We're trying to get more information. We can get students here easily but retaining them is a bit harder. The people who are above me and above my boss are saying that they want disability services to figure out why they're not retaining their students and get as much information as they can.

There was pressure from administration to retain students, mostly due to their funding model. Fewer students meant less money coming in from their funding sources. Ms. Beasley supported the retention efforts but for different reasons saying, "I'm glad. It's never made me happy that we get them in and then don't care if they stay or not." Ms. Beasley didn't know what their retention rate was or how it compared to other colleges in the system but said, "I'm sure there are other colleges better than us. In fact, we might be the worst." Until the merger, they did not have access to an electronic database. Given a lack of staff, and the coordinator's admitted problems with follow-through, records on the retention of disability services students didn't exist. When asked about her wish list for the Office of Disability Services, Ms. Beasley said that she would like more help from Student Affairs for their retention efforts.

A new coordinator was hired approximately a year into my study. Unlike Ms. Beasley, Janet preferred that I address her by her first name, so I will refer to her that way in this document. I asked Janet if there was still an emphasis on retention. She explained:

> I would say we are always stressing keeping our students from one semester to the next. We get a lot of new students. It's not a problem of getting students. It's just keeping them. As a school, we try to handle the retention issue to keep as many students as we can. I feel like it's gotten better since then. Now we have a new student orientation that students go through that helps educate them from day one. I think they are better equipped when

> they get to their classes. We're coming up on a year for doing the new student orientation.

Janet described another intervention aimed at providing students information about learning support services but acknowledged that they still did not have any hard data on retention.

> It's hard to say whether it's affected the disability services students or not. One thing that has helped is that we offer a learning support orientation for students with disabilities. It's targeted towards that population, but it's open to anybody who has to take a learning support class, which is a good majority of our population. We do it the week before classes start. They are also allowed to bring guests so that mom, dad, and grandmother can be there, and I think that helps a lot, because they can then discuss all of that information with their support system. We've been doing that for about, I'd say, this is the second full year. The actual numbers probably won't come out for another couple of years.

According to Janet, who also served as the ADA 504 Coordinator, the departmental work processes had changed little since she arrived except to provide more consistency among the satellite branches of the college. The department reviewed forms and procedures annually.

Verifying the ADHD diagnosis. One criterion for participation in this study was that students must have enrolled with the Office of Disability Services. This office collected documents verifying that students had been medically evaluated for ADHD. Students found to have a verifiable ADHD diagnosis are protected under Section 504 of the Americans with Disabilities Act of 1990 (ADA) and are eligible for accommodations, which include such things as extended testing time, breaks during class, or the opportunity to test alone in a non-distracting environment. Registration with this office assured that the study participants were formally diagnosed without my having to request or review their medical records.

In my first interview with Ms. Beasley, she described a somewhat informal process for verifying a diagnosis of ADHD. Unlike some colleges that require documentation of testing for ADHD, Ms. Beasley just required a letter from a clinician. She reported:

> We are much less demanding than a Regents school [she is referring to the state's university system] as far as documentation of a disability. We can use testing from the

> high school system as long as it's within five years. If you are going to a Regents school, you would probably have to go through testing at the Regent Center. None of the testing done by high school systems will satisfy them and the students have to wait a while. They'll get some accommodations, but they won't get much. I can take that they are ADD from their family doctor or a clinical psychiatrist. I'm not requiring testing.

Ms. Beasley gave the students a full semester to provide documentation, but at her discretion, they could start receiving some accommodations immediately. She had a hard time keeping up with students who still needed to submit documentation. At the time of the interview, Ms. Beasley reported that there was about to be a "crackdown," which she expected to cause some disruption:

> I have to have some documentation. There's a stack about this big [motions to about three feet high] of students that we started with some accommodations, and we will do that, but they have the semester to come to us with the full documentation. I have never cut them off. We're cutting them off in the spring. We are sending them a letter saying that you have to get something. We've never actually done that. I'm not really comfortable with email so I'm mailing these letters home. If you're taking an adverse action, and I would call cutting off accommodations an adverse action, I feel like you have to try to give them due process. If I got audited, I'd be in a world of trouble because of students who aren't qualified.

Things changed when Janet took over as coordinator. Students must now provide documentation before receiving accommodations:

> When we get documentation from the medical professionals, doctors, and psychologists, that's what we pull to see what kind of accommodations they get. So, for example, if the doctor says they need the test to be read out loud to them, I can make that accommodation. But if they come to me and just say hey, I'm having trouble reading but they don't have the documentation to support that, I can't give it to them. They have to have some sort of physical tangible proof from the medical professional showing me that they truly do need that.

When I asked if there were specific credentials required of the medical professional, Janet said, "So typically doctors, psychologists, and psychiatrists are preferred. If it's a mental health diagnosis, it can come from a licensed professional counselor, but that pretty much covers it. I've never received anything outside of those."

Enrolling students. As part of the intake process, students are presented with a folder titled "The Essentials." The left-side pocket has contact information for the Office of Disability Services, the hours of service and information about various academic support centers, information on a textbook lending program, special population services, and a list of apps for learning with dyslexia and reading or writing difficulties. The right-side pocket contains several other forms, the first of which is a Request for Assistance. This is the student's official request to enroll with the Office of Disability Services. The form contains typical demographic information such as name, address, e-mail, date of birth, and the "disabling conditions." The bottom half of this form has a list of approved accommodations and is completed by disability support staff. Students may choose to complete a release form in compliance with the Family Educational Rights and Privacy Act (FERPA). This allows the office to contact whoever is listed on the form. These documents, and an emergency contact form, stay with the Office of Disability Services. The student keeps the remaining documents. These included the following:

Authorization to Discuss Services Form. This form gives disability services personnel permission to discuss accommodations with faculty and staff involved in the student's coursework. It also lets the students know that it is their responsibility to ensure instructors have received the accommodation form, and to contact disability services if the instructor has not received it. This process must be completed within the first two weeks of any semester.

Student Responsibilities Form: This form includes a list of 15 student expectations/responsibilities and three student rights. The responsibilities include policies about how to disclose their needs to Office of Disability Services and the time needed to request specific accommodations, especially as it pertained to testing, quiet rooms, readers, and time extensions. Additionally, there is information regarding official professional documentation

needed to request accommodations. Finally, there are responsibilities regarding the importance of communicating with instructors and staying actively involved with the Office of Disability Services throughout the semester.

Students with Disabilities and Their Rights Form. This form explains student rights, including

- Equal access to courses, programs, services, jobs, activities, and facilities available throughout the college.
- Reasonable, appropriate, and effective accommodations, academic adjustments, and/or auxiliary aids determined individually.
- Confidentiality of all information pertaining to his/her disability, with the choice of whom to disclose their disability to except as bylaw.

Online Request for Testing Form. This form provides information about departmental policies relating to testing requests. Because of demand and limited testing rooms and proctors, the student must request testing accommodations no later than three days before the test is to take place. This request can only be completed online, not in person or through traditional paperwork.

Testing Procedures Form. This form reiterates that students must request testing accommodations three days in advance. One important caveat to this policy is that the Office of Disability Services is closed on Saturday and Sunday. Therefore, if students need testing accommodations for a Monday, they must request them by Wednesday preceding the test date. There are several other procedures the students must follow. Testing with accommodations must take place on the same day the test is administered to other students unless otherwise approved by the instructor. Students can only bring what is necessary to take the tests. Students are only allowed the amount of extra time allotted in the accommodation letter. Students cannot leave the testing room without informing staff. There are also policies regarding rescheduling and lateness. The forms emphasize that students must read their student e-mail daily and respond to any Office of Disability Services e-mail as soon as possible.

Disability Support Services: Academic Misconduct Form. This form is similar to other college's academic misconduct forms. The only thing that differentiates it is a bullet point dealing with the falsification of medical or clinical records.

Disability Support Services: Student Memo of Understanding. This form has four sections:

- *Accommodation Letter*: This section reiterates the importance of starting the process before the semester begins. It also points out that the instructor cannot modify accommodations. Only the Office of Disability Services staff can alter accommodations. It also requests that students notify the Office of Disability Services staff if their courses change or they withdrawal from classes.
- *Advisement*: This section clarifies that the Office of Disability Services staff do not provide academic advisement. Instead, the student is expected to meet with a program advisor. Students are discouraged from taking over four classes a semester and to consider the fast pace of the summer session.
- *Attendance*: This section addresses any conflicts between a student's disability and attendance. It is up to the student to "speak frankly" to their instructor if the disability is causing them to miss classes. It also points out that there are certain programs where excessive absences are not allowed despite the disability.
- *Captionist, Scribe, and Interpreter Services*: This section was not applicable to this study.

The Final Confirmation Form. This form summarizes the other forms and verifies understanding of all the others. The student signs it and returns it to the Office of Disability Services.

Assigning the accommodations. The Office of Disability Services used a software program called SAMS to enroll and track students. SAMS is a "solution built specifically for managing long-term services and supports programs for the aging and disabled populations" (Mediware Nd, para 1). According to Ms. Beasley. "We didn't start using SAMS as our database until the merger. It was clear that if we were going to have that many campuses, we were going to need a database. And that's how we do our intakes." SAMS has hundreds of accommodations built into it:

> There are classroom specific accommodations. There's general ones. There's online ones. And testing ones. It just really depends on what category. For example, preferential seating is really only relevant in the classroom. The general ones apply no matter if it's an online, face-to-face, or homework. If a student is hearing impaired, the videos have to be captioned. And testing is testing.

The staff had also organized common accommodations by the categories most relevant to the populations they serve. A list of accommodations was generated by entering the student's diagnosis or by using one of the customized categories. Once the list was generated, a staff member reviewed it with the student and adjusted it as needed. Ms. Beasley said, "We want to be flexible. It's always a case-by-case basis and there's always a work around. It's really important that we be flexible and individualized. The more individualized we can get, the better."

Despite their desire to be flexible, both coordinators noted that the accommodations must be fair and that students must not get an unfair advantage. Language regarding fairness, unfair advantage, and leveling the playing field appears throughout the literature on accommodations (Barger 2016, Thomas 2000). Ms. Beasley gave several examples of what she considers an unfair advantage:

> There are times that we have to say no. We have people with a learning disability in reading and they can use a spellchecker except in allied health. That is a no. And I'll tell them that in the meeting. Another thing is, some people with traumatic brain injuries want open book tests. They can't have that. That's an unfair advantage. If they let the rest of the class take open book, its fine, but if no, it's an unfair advantage. If the teacher says it's unfair, then I have to consider that.
>
> I had a woman with a physical impairment. I think she had leg braces and her thing was, "I could be late to class." When asked why, she said "because I have a child." And I said we don't have that accommodation. I have lots of students with children who have to struggle. You do not get that as an accommodation. She was eligible for other accommodations, but not coming into class late because of having a kid.

Ms. Beasley also provided a few examples of her meetings with students to review their accommodations. In the first example, she was working with someone right out of high school. In the second, it was a 42-year-old man who was returning to school.

> Well, we talk about the accommodation needs. Sometimes they bring in an IEP [referring to the Individual Educational Plan completed in K-12 for students with disabilities] and I don't bother looking at it. I'll ask the student, "what did you get in high school that you need here?" And we'll talk about whether that's an accommodation that they should have. I met with a guy yesterday who is 42 now. And he says he's had a lot of diagnoses. I go with what they say, and he says he's really ADD. I can go through the list and I know

> what typically works for people with ADD or ADHD. I didn't do that with him. We just kinda talked about what might be happening. What we identified is preferential seating close to the front row, an audio recorder, extended testing time, and isolated testing. I didn't feel like taking him through the whole test. He's an adult. I don't feel like he needs all that stuff.

In both examples, Ms. Beasley used her own judgement more than the actual documents available to her. She did not look at the Individualized Educational Plan (IEP). By law, primary and secondary schools must develop an educational plan for students with disabilities, while colleges must only provide "reasonable" accommodations. Presumably, the IEP would have information that could be useful in deciding appropriate college accommodations. Instead, she asked what the student used in high school and what he or she thought was needed in college. It was interesting that she didn't "bother to look at it." In the second example, she again decided what the student needed to know about accommodations rather than "go through the list" since he was an adult and didn't "need all that stuff."

According to Janet, restructuring the Office of Disability Services led to more consistency, saying, "Now I can make sure each student is getting consistent treatment across all our campuses, whether it's testing or accommodations or just making sure that they are getting fairness in the classroom." She tried to do as many new intakes as she could, but the specialists also did them. They tried to make the process as consistent as possible to assure "fairness."

Once a student's information is entered, and accommodations selected, the software generates a form letter that is sent to instructors by e-mail. According to Ms. Beasley, "We send out accommodation letters. It is not the best way to do it, but that's what we do." There is no other contact with the instructor unless the instructor calls them for clarification. The student's disability is not noted on the accommodation form. Only the Office of Disability Services staff can log on to SAMS and access the student's medical information.

Both coordinators said there was little resistance from instructors about the accommodations, and that this had improved over the years. Janet said:

> So, we actually don't get that too often. We do a lot of department meetings with our faculty to educate them on disability services, so we don't get too much pushback from them. If I were to get that, I would just explain that we have the documentation and they're saying that this is an appropriate recommendation. We think it's appropriate. It's under our guidelines and laws and it has to be followed. I've never really gotten pushback saying this is just flat out unfair. I would just say that this is the way for us to level the playing field for the student, so they have the same access to the classroom material as somebody without a disability. They have to have this accommodation. I think going to department meetings has really helped because we've educated them on what we see on a daily basis. I think when they see that approach, they say okay, just because I can't see the disability doesn't mean that there isn't something going on. So, a lot of times, when we explain that, they kind of see it from our perspective. That has really cut down on the pushback that we get.

Use of accommodations and follow up. I asked both coordinators about follow up throughout the semester and during the student's tenure at the college. On the initial paperwork, students signed a form agreeing to check their email at least once a week for messages from disability services. Otherwise, it was up to the students to contact the office if they needed anything. Janet reported, "Yes, during the intake session, all the students sign several pages. In one of our forms, it specifically says check your e-mail. If you need something, you have to come to us. We put the responsibility on the student." She continued:

> As long as they're enrolled and have completed all the documentation, their accommodations will continue semester to semester even if they don't reach out to us. But it's up to them to reach out to us if they have questions or concerns that we can help with. They can reach out to us if they want or need something, but we tell them that if we don't hear from you, we're assuming you are fine, so we won't do anything.

That is a big assumption, given that follow through is often difficult for those with ADHD. It also seems counterproductive to their retention efforts. When asked if students ever come in to say that the accommodations are not working, or request different accommodations, Ms. Beasley said, "Yeah, and sometimes they add to it. They'll be like, 'Hey I need this. I didn't think I

would, but I do.' If it's a new thing, we will have to do new documentation, because we are not supposed to give them accommodations without documentation."

College students with ADHD have fewer support systems and are less likely to seek support or use accommodations than when they were in high school (Soutra 2018). Although over 90 percent of students with ADHD or learning disorders use accommodations in high school, only 17 percent use them in college. They may no longer identify as having a disability (Soutra 2016). They may be reluctant to accept accommodations because they are afraid of being stigmatized or want to show that they can succeed on their own (Denhart 2008). In my study, students used their accommodations inconsistently or not at all. I had not yet interviewed the students when I first spoke with Ms. Beasley, but she mentioned that, "More frequently [than asking for additional accommodations], they end up not using most of the accommodations. I've had people who have 16 or 17 accommodations and don't use many of them. A lot of students don't use them." I asked Janet about this. She wasn't sure how many students made initial inquiries but did not actually enroll with the Office of Disability Services. Of students who were enrolled, she also wasn't sure how many didn't use the accommodations. She did venture a guess:

> It's hard to say. This semester, we probably have 105 brand-new students. I would say out of those hundred and five, I probably hear from half of them about something and I would say a majority of that half will enroll, but either don't need the accommodations, or they just don't need it this particular semester. They might need it when they take anatomy. It's hard to say an exact number, but probably about half of them don't need or require any services within the semester.

When asked why she thought students with ADHD might not follow through with their office, she reported, "It's hard to say if a student isn't coming back to us, whether it's related to ADHD or if it's something else. Could be the anxiety or depression. Could just be a family issue. It's hard to say just what would keep them from coming back, but I don't know that I necessarily

notice." That was an interesting choice of words, given that ADHD is sometimes referred to as an invisible or hidden condition (Mullins and Preyde 2011).

Student Experiences with Accommodations

There is a surprising lack of research on the effectiveness of accommodations for ADHD (Abiola 2015), or on students' experience with them (Pritchard et al. 2016). Existing studies on the effectiveness of reasonable accommodations often use research designs that cannot draw conclusions specific to students with ADHD, either because they are included in broader groups of students with emotional, behavioral, or learning problems, or because the research does not compare students with and without ADHD. The most common accommodation for ADHD, and the one reported as most helpful, is extended time on tests (Jansen et al. 2016). This is also the most researched accommodation. Much of this research concluded that extended time does not produce better outcomes and may hurt student performance in some cases (Jansen et al. 2019; Miller, Lewandowski, and Antshel 2013; Lewandowski et al. 2007; Pritchard et al. 2016; Lovett 2010).

As previously noted, disability specialists take care not to give an unfair advantage, yet some studies report that extended time on tests does give students with ADHD an advantage. Miller, Lewandowski, and Antshel (2013) studied the effects of extended time on reading comprehension. The study included 38 college students with ADHD and an equal number of matched controls. The two groups did not differ in the number of items attempted or correctly answered at standard time, time and one half, or double time. However, when given extended time, the students with ADHD attempted and answered significantly more questions than the control group. The researchers concluded that extended time was not necessary for all students with ADHD and provided an advantage that the control group did not have. Lewandowski et al.

(2007) found that students with ADHD did not use their extended time effectively, and that those who had the most ADHD symptoms benefitted the least.

Despite a lack of evidence as to their benefit, students in my study were offered extended time on tests and a quiet testing location, the two most common accommodations for students with ADHD. No one reported using any other accommodation. The students described different experiences and feelings about using accommodations. Some rarely or never used them. Others used them consistently. In a study of 86 college students and 48 counselors, Jansen et al. (2018) found that perceptions of the effectiveness of accommodations strongly depended on the underlying problem the student was having. The most frequently reported problems were related to sustained focusing and attention, frequent daydreaming, difficulty completing tasks and difficulty planning and organizing. These findings were consistent with what I saw in my study participants. The authors wrote:

> Students with ADHD struggle in higher education as a result of various functioning and participation problems. However, there are remaining gaps in the literature. First, it remains unclear how often and during which teaching and evaluation methods problems arise. Second, we do not yet know which reasonable accommodations are most effective to deal with the functioning. And third, we do not know which accommodations are most effective to address participation problems of students with ADHD in higher education (P.35).

The researchers also found that students often did not have a good understanding of the supposed benefit of the accommodations, nor did they accurately predict the degree to which the accommodations helped them. This was also consistent with the students in my study who were not sure if or how the accommodations helped, or if they even needed them. When I asked Sue if she used her accommodations, she said, “No, not really, but I think I need to. I think it might help. If I'm at home by myself, I'd rather watch TV, but like I do need a quiet room. But I’ve

never done anything like that, but maybe I need it." Will said, "I'm too old for that stuff. I mean, I'm not in that millennial grouping. That's one thing we didn't have back in our days."

Samantha was inconsistent in her use of accommodations. She spoke of her experience with the disability services staff and found their explanations of the services helpful. Whether or not she used the testing accommodations had to do with the number of students in the class and if she thought the environment would be distracting. She rarely used the additional time.

> They [the disability services staff] very much just wanted to help me in any way that they could. Anyway they could have, they helped, and if I needed isolated testing, they explained that this is how I go about doing it, and if you have any questions, you can always come to us, and I normally don't use my accommodations because I used to use them frequently for isolated testing, because there were too many people and too much noise in the class. But when I got to college, to see a 0, or anything bad would break my heart, and I would just, from then on, change my mindset.

Diego used a quiet room for testing because even little things distracted him. These might be external distractions, such as a movement that he that he couldn't block out, or something he was thinking about. In either case, the extra time in a quiet room helped him focus on the test.

> I get testing accommodations, like I need a quiet room to study, you know, cos' the smallest noise can send me off on a tangent, and all of a sudden, I forgot everything. So, I got that. I got um, a separate room, quiet room. I get more time, because I need more time. The smallest thing can set me off. I can't control that. It's like boom boom, and that's why I feel like I have to develop an um, a peak level of self-control to get to the point, well especially like you, you're working on your Ph.D., that's a doctorate, that's a lot of dedication, that's time.

Diego's comment shows the distraction and disorganization in his own mind, which he says he cannot control. Because of problems with working memory, he has trouble recalling thoughts or events immediately preceding the distraction. The quiet place to test decreased the number of external distractions. Additional time on the test was used to refocus, and either recall what he had been processing or start over.

Like Diego, Rosa preferred a private room for testing because a large classroom was too distracting for her. She also needed to be able to move around and "wake herself up," a

euphemism for refocusing. She also did better when she could talk out loud, saying “I need to hear my voice.” While Rosa used a private room for testing because the classroom was distracting to her, she was aware that her behaviors were equally distracting to her classmates.

Rosa often used the extra time on tests, but not necessarily because she had ADHD. She used the extra time because English is not her first language and she reads more slowly because of it. That raises the question of fairness discussed earlier. Other ESOL students do not get extra time for testing. Neither would Rosa if that was her only reason for needing the accommodation. When asked if she used the accommodations available to her, Rosa said:

> I do, and the one that's really helping me is during tests. I am using private rooms with computers, so I can read out loud to myself, which I cannot do when I'm taking a test in the classroom with other students. When I'm reading, if this takes more than 45 minutes, I have to get up and sometimes make different physical movements to wake myself up, which I cannot do in the classroom either. Also, I cannot stand when people are getting up when they are finished already. I'm a slow reader. It takes me forever to read sentences, understand it, to translate it to English, to make sense out of it and try to answer. I do better when I'm talking to myself or speaking out loud. I used the special accommodations at the previous college. I've used them everywhere I go. I think it's very beneficial for me to use the private room. I cannot take tests with other people. I get stressed out by them and their noise and them getting done earlier. It's like I get frozen and I cannot even think about the test anymore. My heart starts racing and then I’m staring at a nail in the wall. I'm done. Interestingly, I don’t think this is time management. If it’s just me and the problem, I can manage it. I can figure out how to finish it, but if I have distractions around me, then I can't. It's like, Jesus take the wheel. I do the extra time because of the special accommodations. Because of ADHD, I get extra time to read and to finish and comprehend so I appreciate that it helps.

Kara believed she needed accommodations but didn’t always use them. In high school, she was concerned about being stigmatized as someone with special needs. She was ashamed that she wasn’t functioning like everyone else and didn’t want anyone to know. As an adult, she recognized that she needed the accommodations, but still hesitated to use them because she knew she would not have these advantages in the real world.

> I don't use them, but I know 100% I need them. I went out on a limb and took the classes on campus, because I want the interaction and a break from mom life. In doing that, I

> have had a hard time concentrating, so I kind of feel like maybe they would handicap me in a sense. In the real world, accommodations are not really my reality.
> That was the thing. Growing up, I was ashamed. I have all these things to do and I can't just get them done and I can't just fix it, like turn it on and just go. I can't. I got diagnosed at 14 or 15. It was at the beginning of high school and I didn't want to share it with my teachers. My mom took it upon herself to email all of my teachers and tell them. They were just like, "hey do you need anything?" And I felt like the other students could tell. But in college I felt like you're an adult you should be able to take advantage of whatever can help.

Janet, one of the Disability Services Coordinators I interviewed, addressed Kara's concerns saying:

> Some of our students are worried about confidentiality as far as when they graduate from here and getting a job. They think that if I say I'm in disability services, there's no way this job will hire me. I explain to them that it is confidential. Your future job employer would have no idea that you were ever with us.
>
> I think a lot of students know that their education careers are coming to an end and they're about to go into the real world. They know that you have to get ready to face a world that isn't going to necessarily give them accommodations that they may have had their whole life. But if they are picking a career path that's suitable for what they're doing, it is usually not a problem. If someone's learning disability is in math, they're probably steering away from anything that has to do with math. A lot of times, they are helping themselves that way.
>
> We hear this more from the instructors than we do from the students. You'll hear instructors say, I'm fine if we read the test to them but when they get a job in a hospital, the employer's not going to read the instructions. And I just say, that may be the case, but while they're here in our control - that's probably not the right word - but while they're here with us, we can do what we can to level the playing field. When they get out into the workplace, they might have to work with their employers and the policies and try to figure out what they can do to make the workplace accessible to them. We can only do so much. We can only handle what's going on in the school.

Kara and others talked about the fear of being stigmatized. This is consistent with research on college students with ADHD. In a qualitative study, Lefler et al. (2066) reported that some college students were embarrassed by the ADHD diagnosis. Their study participants reported trying to hide the ADHD label for fear of being judged by others or called a fake. Students reported embarrassment when approaching an instructor, being seen entering the disability services office, or having classmates notice that they did not take exams with the rest

of the class. One instructor I interviewed talked about a student who came to take tests with her classmates, but just randomly filled in the answers. She had already taken the test in the disability services office. The student was part of a cohort who were together for 18 months. She didn't want her classmates to know she was using accommodations, so she pretended to take the test with everyone else, believing the other students would judge her or think it unfair that she got more time.

Learning Support Services

Academic support was provided to students via the Learning Success Center (LSC). Services included the orientation previously described by the Disability Services Coordinator, online study materials, and tutoring. To be eligible for tutoring, a student could not have missed more than 20% of the class sessions in the subject for which they requested tutoring. Tutoring was limited to two hours per week, which is the same as any student. The student can lose tutoring eligibility for the semester if two sessions are missed without 24-hour advance notice. Limited online tutoring services were also available. The only reason my study participants reported having used the LSC was for tutoring, and this was rare. Only three of the participants had ever used the LSC. Of those, one student found it helpful, one did not, and one had a mixed experience. Diego used the LSC as often as possible and found it helpful.

> I picked up on the fact that, well I didn't use the success center at first because I got an A and a B on my first 2 quizzes. And then the third one hit, and I got a 72, and I was like "oh no" so I had to go to the success center and read over all these books and go to a quiet place. Once I started doing that, and I started going through and really looking at the information, I was like oh ok, this is what this is and then I could really understand it.

> Yeah, I told the dude at the other one at the North Metro campus and told him that. There was this tutor that really helped out. I'm not sure what he was, but I think he was an old teacher and he really helped me understand how to process the information. If I can process it. If you can give me something to hold on to about it, I can run that through, and I can understand it.

Elie found it difficult to use the LSC since tutors presented the information differently than the teacher, leading to confusion and wasted time.

> Honestly, it's really weird because for me, tutoring actually didn't work out. It's kind of strange, because it did just the opposite. It is hard for two different people to teach me the same thing. When I was at the tutor, it would go in one ear and out the other. The same thing with the math teacher. They are teaching the same thing, but there's different teaching styles. So that's something I did try but just made it confusing.

A third student had not been using the tutoring services, even though her past experience was positive.

> The lab for anatomy, I never went the first semester. I still passed, but I used it the second semester and it helped. And then I use their STEM center to study. I went there twice and quit. It did help a little bit. Other than that, I don't like to come to college because if they can offer the class online, I don't really need to be here.

Consensus among the students was that they did not have major issues learning the material and therefore did not need academic support. Their problems were related to keeping track of due dates and/or finding the will to complete the assignments.

Class Format

Most students took a combination of face to face, hybrid, and online classes. Some preferred one or the other, but their reasons were not much different from any other students. No one had considered whether they performed better in classes with different formats. Elie prefers online classes because they required self-discipline which forced her into a routine.

> For me, I am really routine based. So, if I do all my work on a Monday and just go from there, I'd say it is all about discipline. You have to do the work to get a good grade. But for me, it's all about writing things down now. I've taken online classes in the past and been like, whatever, and then I ended up failing.

Although she liked face-to-face classes because "the professors are very present and there with you and very helpful," she usually took online classes because she could not sit still in a classroom.

Rosa liked face-to-face classes but had a hard time sitting in class for a long time. She found a strategy to help her focus, but acknowledged that some of her classmates found it annoying:

> It is also very difficult for me to pay attention and to keep my eyes open while watching PowerPoint. Although, if I sit in the front row, I find that if I constantly raise my hand and ask questions it helps me pay attention. I've heard some of the other students saying they benefit from this because they think the same things, but they hesitate to ask the question. Other students say I shouldn't have so many questions because I'm taking up time and they want to go home. They just want to listen to the lecture and go home and I don't really care what they say. I go to school for myself.

There were things that Rosa liked about online classes, but she needed her medication to do the work independently.

> I do like them. I do like to be in class to be able to ask questions, but I find that I actually enjoy setting up my schedule with online classes and studying in blocks, but I do need my medication to be organized to be focused on multiple tasks and what I need to do. I try not to become too fatigued and just go home and sleep and not do anything.

Ally liked online classes but acknowledged that they could be stressful. Still, she found the little noises in the classroom so distracting that she preferred to be at home saying, "I like online but it's so stressful when you are having computer issues. When it's online, I can be in a separate quiet place without hearing the paper slipping and sneezing and coughing." Diamond liked online classes because she has the kind of job that allowed her to do her assignments at work when she had time. Marisa preferred to be in face-to-face classes because, "It's easy for me to ignore technology. But if I have to go to a class, if I am one of 13 kids, the teacher is going to notice I'm not there. Eventually you get emails that are like, I noticed you were not in class." Sarah did not think she would be able to sit in a classroom all evening, so she also preferred online classes. Sue said that her preference for online or face to face depended on the subject. Generally, she preferred face-to-face classes because she had better access to the instructor and learned things better in class than by reading saying, "if you mess up, they are right there to

correct you." For other classes, particularly where there were a lot of essays, she preferred online because it gave her time to figure out what she needed to do and "really prepare."

Viewing the Office of Disability Services as a conduit between larger societal ruling ideologies and the experiences of these students, it is not difficult to identify a myriad of work processes taking place to facilitate this collaboration. We have examined examples of the work involved in providing accommodations from the standpoint of the Office of Disability Services. We have also explored the work that students must complete in order to receive those accommodations. This form of work is mainly procedural and not difficult to recognize because it fits within the organizational concept and language of the institution. However, from the standpoint of the students in this study, another less noticeable form of work took place on top of that required of other students. This work is largely unrecognized by the Office of Disability Services and other college support systems, the larger social institutions that inform that office, and often to the students themselves.

At this institution, the full burden of obtaining and using the accommodations fell on the student. For example, according to the policies and procedures, the students must obtain documentation of a disability and provide this to the college. The students are responsible for all initial and follow up contact with the Office of Disability Services. The students are even responsible for assuring that an instructor received the accommodation letter from the Office of Disability Services and made the necessary changes. Students described having to remind an instructor to set the exams for extra time. One student reported, "I will sit down to take a quiz and see that the instructor forgot to set it for time and a half. I have to stop what I am doing, contact the instructor, wait for a response, and then for him to set the quiz correctly which could take a whole day. Then I have to find another time to take it." Students who take their exams in

the testing center must schedule it for the same day it is given to the other students in the class. To use this accommodation, the student must schedule a time outside of the normal class period. Due to the testing center's limited hours, this may require the student to change a work schedule or find additional childcare.

Those charged with providing accommodations at this college may not see this invisible work. For the most part, they also do not see the student when actually using the accommodations. They can do little, if anything, to assist the student with the work. Finally, despite the reported emphasis on student retention, the Office of Disability Services does not have the resources to follow up with students in danger of dropping out of college, or even with those who don't use their accommodations. Even more telling is that students did not expect anyone to help them with the work. Most of the time, they had not even considered that using the accommodations imposed additional work on them. They just accepted it. For these students, ADHD was an individual problem that was primarily their responsibility to deal with. As Sue said, "I just coped on my own and figured it out on my own." The remaining sections of this chapter present the strategies and tools the students employed in their attempts to adhere the schedule and successfully complete their coursework.

TREATMENT STRATEGIES

Medication

Medication management is widely accepted as the first line of treatment for ADHD because it is thought to alleviate the symptoms at a biological level (Barkley, Murphy, and Fisher 2008). Similar to accommodations, these medications are thought to "level the playing field" (Weiss, Hechtman, and Weiss 1999:32). These are powerful drugs with significant side effects. There is uncertainty and ambivalence about the use of medications among the lay public, the

physicians who prescribe them, and the students who take them (Loe and Cuttino 2008; Schmitz, Filippone, and Edelman 2003). Others are highly critical of the use of medications to treat ADHD, either questioning the validity of the diagnosis and/or the motives of the pharmaceutical industry. (Conrad and Barker 2010; Diller 2006). The exact mechanism by which these drugs work is unknown and estimates of effectiveness vary based on the criteria used to measure it (Torgerson, Gjervan, and Rasmussen 2008). Even with optimal treatment, neurocognitive impairments persist (Gualtieri and Johnson 2008). Another concern regarding medication therapy is noncompliance. Adherence to the medication regimen is correlated with a decrease in ADHD symptoms, but most people taking ADHD medication report less than perfect adherence to the medication schedule. The adherence rate may be as low as 12% after the initial three months of treatment (Safren et al. 2007)

In my study, the students' experiences with medications varied, but were consistent with the literature on college students and ADHD. Although medications helped them complete the coursework and meet the deadlines, there was another layer of work involved in taking the medications and managing the side effects. For most, it was not worth it, and they discontinued the medication.

An obvious benefit of medication for ADHD is that it helps the person focus. Ally reported a long history with different ADHD medications going back to her childhood. She did not remember the names. She was not on medication when she started college but decided to try it again because she was having difficulty focusing. The medication was helpful, but not without consequences:

> I got put on Vyvanse and that helped me stay more focused. But the thing is, it was an eight-hour pill, so by the time I got home to do my homework, I was distracted and not paying attention to anything. So that was definitely hard. As time went on, I got a booster pill so that it lasted three extra hours for homework.

> It works amazing. I notice on the days that I don't have it, I'm just completely out of it. When I take it, I don't need it all and it's a 12-hour thing, so I don't eat dinner or breakfast. During the semester, I lose like 10 to 20 pounds. I'm always super jittery and shaking like I had 10 cups of coffee. It makes me really anxious, and I talked to my doctor about that. In the summer, I don't take it. I just need it for school. So, when I go back into the school year, I go in on a lower dose.
>
> Yeah that's what I hate about it [talking of the side effects]. I started with Vyvanse and got anxiety. So then I was prescribed Zoloft, but that gave me insomnia. Now I'm taking high blood pressure medication to help me sleep and it's messing up my blood, so it's like one thing leads to another and I'm just a giant mess of pills.

Ally was not alone in her description of both the positive and negative effects of ADHD medications. Dylan was not taking medication the semester I interviewed him but had a history with different ADHD drugs. He was diagnosed with ADHD as a sophomore in high school and put on Ritalin. He reported a negative experience with Ritalin, saying, "Negative, except a couple times where it was almost recreational and kind of felt good but not for the right reason." He also tried Concerta, about which he said, "Concerta was just sort of neutral and helped with the attention deficit but didn't do anything for the hyperactivity." Finally, he took Vyvanse for a while, about which he said:

> Vyvanse, I was on it for a few months. Vyvanse helped, but it was unhealthy. It definitely helped me focus. I would have so much focus that I wouldn't be able to focus on what I was supposed be focusing on. I would just be doing other things. So, it wasn't necessarily beneficial toward school. It really just took my attention to everything else.

Dylan also reported a history of side effects:

> They are horrible. First up, it eats a hole in your brain. I had extreme insomnia. I would come home at midnight, stay awake until three, and then sleep until seven, and then go to school. I was very physically dependent. I remember one time I forgot, and I called my mom and said you have to bring that. I was getting shaky and jittery. Other than that, it definitely impaired my short-term memory. I would have all of these notes taken, and I didn't remember a single thing that happened in the class.

Dylan described an interesting phenomenon related to ADHD medications. They helped him focus on one thing (taking notes), but to such an extent that he was not aware of anything

else, which he experienced as forgetting. In addition, the medication helped him focus and pay attention, but not always on the things he was supposed to be doing. The medication was used as a strategy, but sometimes became an impediment.

Will said that medication helped him focus, but "turned him into a zombie," so he no longer took it. He still thought it would work for him, saying, "You can focus so great. It was so weird." For Will, the benefits did not outweigh the side effects. Kara also believed the medication helped her but limited how often she took it explaining, "I try not to take it every day. I try not to go too many days in a row consecutively. This past weekend, I went to the beach, and I didn't take it and it sucked." For her, the medication served as motivation to start her day. Without it, she seemed to know she wouldn't be productive, describing herself as "lazy."

> I started Adderall in high school. I believe they switched my dosages twice. At one point, I was taking it twice a day and then when I got to college, I started taking 50 once a day and it wore off fairly quick. What helps me get out of bed is that I know I'm about to go downstairs, take my medicine, and drink my coffee. If I know that I'm not taking my medicine, I'm extremely lazy.

Kara had also tried Vyvanse, but "only took one prescription of that. It gave me really bad migraines. I liked it. I feel like it had different effects than the Adderall, but I always had a headache."

Elie was diagnosed as a freshman in high school when her parents took her for an evaluation and she was placed on ADHD medication. Once it was up to her, she chose not to take it, saying:

> I'm not a medication hater at all, but it just didn't work for me. I was on Vyvanse for a while and it helped me with school. I saw an impact, but when I was done with school, I had the worst side effects. I'm a naturally anxious person and Vyvanse just made my anxiety way worse. They just don't go together. They did put me on medicine, but that didn't work. I haven't really had a desire to take anything since, especially in college.

When I asked Elie why she did not want to take it now, even though she thought it might help, she said, “I don’t think I would want to deal with the side effects.”

Marissa no longer took medication, reporting a complicated history of side effects. As several other people noted, although the drugs helped them focus, it also seemed to impair their memory.

> I was diagnosed with clinical depression as a junior in high school and it just got worse and worse. I was taking the Adderall and Vyvanse for the ADHD and that was making me more depressed. I couldn’t keep track of anything. Vyvanse, I tried taking it. They said it was an alternative to Adderall. It’s supposed to be better. It was dual release. It wouldn't be so concentrated and then falling off by the end of the day. Um, I didn't take very well to it personally. That's when the depression really started getting bad. Sometimes, I just had adverse physical reactions. Hard time breathing, seeing things in weird patterns. I'm still experiencing issues because of the fact that I was starving for like eight years. On the weekends, I didn't take it, so I would binge because I was starving myself during the week.

Marissa also reported side effects of Vyvanse saying it made her, “Weirdly fuzzy. I also had insomnia and panic attacks.”

Sue rejected medication completely because of bad experiences with a different psychotropic medication. She initially sought help for anxiety, not ADHD.

> The main reason I went in there was for anxiety. He asked me a bunch of questions and he was like, I think this [ADHD] is the problem and I basically blew it off like I don't care what you have to say. Give me something for anxiety. He did, but I started feeling terrible with medication. I was like, I don't ever want to be on medication again no matter what I'm going through. I’ll just have to take a deep breath and try to keep going, because I don’t want to be the person who depends on medication.

Sue was offered medication but said, “I didn’t want it, so I never followed up.” Samantha also did not take medication anymore and just coped on her own saying, “I tried Concerta and it didn't do anything. I tried Strattera. It was horrible. The worst experience of my life. I just coped on my own and figured it out on my own.”

Two students reported no negative experiences with the medication. For Diamond, Adderall and an antianxiety drug had worked for her, but her health care insurance changed, and she could no longer afford it. She would take it if she could. Rosa has taken Adderall since she was first diagnosed. She reported:

> So yeah, I was diagnosed back then, and I started taking medication, which I'm taking right now. Adderall 15 mg extended release which works fine until I sit down. So, it still kind of, you know, I have to remember this and do something else. I'll go and I'll work out two or three times a week because it helps me to sleep better. I feel better. My mood is better. I have more energy. So yeah, I do that.

Finally, Diego also thought the medication worked for him but did not want to rely on it in case he lost his health insurance. He also questioned if he really needed it, seeing it as a crutch. He could do the work without it. It was harder (more work) but also more self-satisfying.

> Yeah, it's helpful sometimes. But like, if I take Vyvanse, I'm not saying it's not helpful, but it's always felt like all it really did was underline what I already knew the answer was. It's like having someone only put the gutters up on the lane when you know you are going to bowl a strike. You know you're going to get a strike, but I guess it's nice sometimes to not have to have the gutters now.

> I used to do Vyvanse a lot. I don't do it anymore. I'm trying to like, I'm trying to wean myself off of it, because I feel like there is going to be a time when like, when I'm on my own, I'm not gonna be able to afford it. You need that money for different things. Vyvanse is mad expensive bro. So, I'm like, hey, you have to focus, and you have to be able to articulate and formulate your own sentences and operate on your own. So that's what I've been trying to do. Right now, I'm on health insurance, but I'm trying to wean myself off Vyvanse. I'm doing pretty good by myself.

Despite the widespread use of drug therapy, it clearly does not address the complicated needs of persons diagnosed with ADHD, yet it is still the first line of treatment. It is often the only treatment offered, especially for adults. Geffen and Forster (2017) advocate for a combination of psychopharmacological and psychosocial treatments, although access to the latter is often limited due to lack of awareness, availability, or financial constraints.

Psychosocial and Behavioral Approaches

The goals of non-medication centered therapies for ADHD relate to life skills and support (Dodson 2008). Dodson recommends multimodal therapy with individualized treatment plans. Butross (2007) stressed the need to consider academic ability, school and career plans, behavioral issues, level of support, and coexisting conditions when selecting an appropriate treatment. A popular therapeutic approach is cognitive-behavior (CBT) therapy, but the research is mixed regarding its effectiveness for ADHD (Anastopoulos et al. 2018; Ramsay and Rostain 2007; Toplak et al. 2008; Weiss et al. 2008). Psychological treatment can play an important role in treating adults with ADHD who are motivated and developmentally ready to acquire new skills as their symptoms come under control (Weiss et al. 2008).

Behavioral approaches include goal setting, planning, time management, organization, and management of the environment (Bramham et al. 2009; LaCount et al. 2018). Coaching is beneficial in some instances (Kubik 2010). One limitation of these studies is that although the participants may have demonstrated improvement during the intervention, there was no follow-up data to determine the long-term effectiveness. As was the case in my research, disability services in community colleges provide accommodations, but rarely include other forms of assessment or treatment.

None of the students in this study reported using any non-medication related treatments for ADHD, although those diagnosed in childhood recalled having an Individualized Education Plan during their K-12 school years. All reported using the common organizational and time management strategies and tools described below. Their efforts were individual in nature, resulting in repeated episodes of trial and error as they sought to overcome their difficulties with time and with the schedule.

ORGANIZATIONAL AND TIME MANAGEMENT STRATEGIES

Calendars and Planners

Using an organizational/scheduling system is a logical thing to do, especially if a person has trouble with time management. However, the students in my study, like many people with ADHD, had difficulty using a system with any consistency. All the students had tried some type of calendar or planner. I found it interesting that they viewed calendars and planners differently. They described a calendar as something that you hang on a wall or have on your desk and that shows one month at a time. Planners were described as more complex, typically organized by day or hour, and something to be carried. The calendar was less structured and did not require as much effort to keep up to date. It could be easily seen without having to spend time looking or remembering where it was. Planners required more intention to keep up with. Planner also forced the users to organize their thoughts in a way that was difficult for them. Many of the students used calendars, but almost all hated planners.

In our initial interviews, Samantha believed she had discovered a planner that would work for her, although she had unsuccessfully tried others in the past. She attributed this to the planner, not her use of it. She found one that was laid out better and was optimistic that it would be beneficial. In the initial weeks of the semester, it worked.

> It’s not the first time [using a planner], but it is the first time I'm really trying to make it work. I like this layout better than the other one that I had. This is more like a calendar rather than just having dates with notes next to them. I didn't like that other layout. It never worked for me. When I started for college, my mom bought me a couple gifts. She got me an agenda, and she got me this (a pen). I always start off strong and then tail off. Everyone's like, take a picture of your work schedule, but then I have to go on my phone and turn it sideways and it is too much. I like the layout of this planner. It is the perfect size. The other day, I walked into the school and I saw this guidance counseling thing about relieving stress. I want to make sure I remembered it, so I wrote it down in the planner and it reminded me to make an appointment with a counselor to meet every week. So, I use it for more than school.

In this example, Samantha expressed that it was “too much” to get her phone, bring up the image of her schedule, and turn the phone sideways to view it. Her reaction to the effort appeared out of proportion to the actual work, suggesting that she was responding to additional work outside of her concrete and visible actions. As Smith explains, “not all work practices of the individual are observable” (1987:162). Smith offers an example of how the role of mothers in relation to schools does not appear as work, saying:

> Their thinking, the effort and time they have put in, and the varying material conditions under which their work is done do not appear. Their presence as actual subjects is suspended. The actualities of their work in local settings, and of the social relations in which it is embedded and through which it forms part of a division of labor are emptied out (p. 165).

In Samantha’s comments above, and as seen in those of the other students, the unobservable work of using organizational and time management tools was complex and often overwhelming, causing the strategies to break down. Using Samantha’s example, accessing her schedule on the phone required that she had remembered to save the image on her phone in a place she could readily find it. She had to locate her phone when she needed it and keep it charged. If the schedule changed, she had to remember to take a new picture. These, and other seemingly simple work processes, were more difficult because of the frequent misalignment of the students’ inner experience of time, clock time, and the schedule. This was evident throughout the interviews as the students described their experiences with the strategies and tools used to correct the misalignment.

Samantha had trouble prioritizing what to write in the planner so she wrote down everything until she did not have any more room and could not add an important appointment, explaining, “I started writing recently when all my things were due. I had an important appointment today but didn’t have enough room on the page to write on, so I missed it.” She

thought she had a good thing going at the beginning of the semester, but at the follow up interview, she reported no longer using the planner.

> Yeah, I'm not using it anymore. It wasn't helping me with anything. It was OK if things went according to schedule, but all of a sudden, they wouldn't, so it was just too difficult to use because in college classes, a lot of the time things get mixed up and messed up and they change stuff like that.

It was hard for Samantha and others when the schedule changed. A planner required constant upkeep. If she did not make the changes in the planner, but still relied on it, she was worse off than if she had not used it in the first place.

Sarah reported that she used her day planner "religiously," and considered it a form of motivation. Nonetheless, she often waited until the last minute to do something, and this confused her. She said, "I know exactly what I have to do and every time I do it, I check it off the list." She kept the planner in her purse, so it was always available, but it still did not solve her organizational issues.

Will did not like planners but found a calendar helpful. Planners forced him to work within a schema that was not relevant for him. He said he tried a planner once but, "it was horrible." When asked why, he replied, "Well for one, I didn't write anything down, and when I did, it wasn't really relevant to anything. It wasn't a structure I could accept. It was more of an inconvenience than a helpful tool." On using calendars, Will said:

> Actually, I have a bunch of calendars. One on the computer desk. A calendar on the wall. Part of my job is planning what's coming when it's coming. I use a Google calendar to track things that are going on personally. I have a calendar on my outlook for work. There's usually a calendar around somewhere.

The tools the students used had to be visible in order to be of value. Sue explained, "If I have a planner, it has to be out. It has to be something I see all the time. If I can see it all the time, that's good. If I have to remember to go get it, it won't happen." Will also needed to see the

calendar in front of him at any given moment, so he had them all over the place. Ally also needed the schedule to be immediate and visible. She took this to an extreme, writing her schedule on her arm so that it was unavoidable and, “more efficient.” Instead of a planner or calendar, Ally said:

> I'd rather use my arm. (Laughs). I write down everything on my arm and I look at my arm all day. I can see right in front of me. The only way I can get it off is in the shower. It's funny, but I have friends that will put it on my left arm, because I'm left-handed. So, when it's on my left arm, I can see everything whenever I'm writing. It's funny. I've never really liked daily planners. I've never liked writing in a planner. I just want to write on my arm. It's more efficient.

Ally’s “more efficient” method meant there was less work involved in using it, and fewer opportunities for error.

Elie started out the semester in planning mode. She wrote everything down, setting aside specific times to prepare for tests, homework, and other assignments. She scheduled study time approximately two days before an assignment was due. She also put reminders in her phone. She tried to make planning something she enjoyed, or that she was at least more comfortable with. In the past, she had not always remembered to put everything into the planner, so she was never sure what she needed to do. She experienced considerable anxiety because she relied on a planner that she knew was incomplete. Still, when we first spoke, she was determined to get off to a good start and used the planner successfully. Even though it was working at the time, she could not escape her anxiety over the schedule, saying:

> I’ve tried to make it something I would enjoy even though I don’t like writing things down. I am pretty OCD too. So, when everything is in one place, it's almost like, satisfying to me. I know that everything's in there. My problem is I couldn't stop thinking about what I had to do next. So, I would sit there and say, what can I do next, what can I do next. Now it’s like, I can’t do anything next because I’ve done everything that I need to do. When it’s time to shut down, once I’ve checked everything off, I can just relax, but I have a hard time.

At the end of the semester, I asked if the planner had worked out and she said, “No, because I didn’t use it properly.” She acknowledged that she had been more successful with the planner than in the past, even experiencing anxiety if she did not check it frequently, saying, “I have made myself feel comfort in it. When I haven’t pulled it out in like a week or two weeks, I still need to open a planner just for me.” She believed that she forgot things less often this semester than in the past, but it wasn’t a perfect system. The most telling statement was that, even though Elie said she was “pretty OCD” about using the planner, she may not check it for up to two weeks. There were many inconsistencies like this throughout the interviews. Like Elie, the students rarely saw the contradictions in what they said.

Kara also started the semester strong, but eventually stopped using her planner or calendar, sometimes intentionally ignoring the reminders:

> My mom has bought me about 25 daily planners. Bless her heart. She tries so hard. She would buy me the cutest planners with stickers and nice photos in them and inspirational quotes and scriptures. And I use them for a couple of weeks, but I don't like having to carry around a book. I can't stand it. I’ll even create calendars in my MacBook. I will see things pop up and I will just turn them off.

As described above, some students tried to use a calendar or planner that they carried with them, with varying degrees of success. Marissa probably summed it up best when she said, “It doesn’t work. Things just don't end up on it, or I don't check it.”

Electronic Devices

Some students preferred electronic planners or calendars to keep track of their schedules and remind them of the time. Sue tried to use a paper planner, but found her phone worked better because it was more likely to be readily available. Since she always had it with her, she did not have to spend time looking for it, saying, “it's easier for something to just pop up on my phone than it is for me to search out something on a piece of paper.” Dylan had tried physical calendars

in the past but never consistently used one. For his coursework, he used the Blackboard calendar but otherwise kept things in his head, saying, “I just really think about it, but I don’t keep a physical schedule or anything.” Dylan checked Blackboard and used alarms on his computer because his phone was not working well at the time. This strategy was limiting because it required access to a computer, which may not have been available when he needed it. He said, “I use alerts and alarms on the computer all the time. I use them more than I should, probably.”

Several students reported using electronic reminders, but the alarms go off when they are in the middle of something else and they just turn them off. As Marissa explained, once the alarm was turned off, it was out of mind and no longer useful. She said:

> I ignore the reminders and notifications. They are set for specific times and I never know when I'll be in the middle something. I set it for 20 minutes in advance, but I'll be in the middle of something and be like, yeah, I'll finish that later and then I won't.

Samantha also set electronic reminders by putting them on her phone, but like other students, she found herself turning them off without acting on them. She also set reminders in some computer applications to save her work every five minutes. The reminders became another distraction and a source of irritation as she was trying to complete her assignment.

Sue did not find paper calendars, planners, or notes helpful. She relied on a phone app where she could set a priority level for each item. Unfortunately, she had a hard time setting priorities. For her, “everything is a priority.”

> It’s [the schedule] in a reminder app. For my classes, I will type in what time it is and I'll put it in a priority. I always put the three strikes because it's really important regardless of what it is. I need to be reminded even if it's not important. That's pretty much what I do. I write it in the phone. If I write it on a book that is a piece of paper, I probably won't remember it.

Unlike Kara, who turned off the reminders when they popped up, Sue left them on until she had completed the task. Like Samantha, the repeated reminders became a distraction. Laughing, she admitted, “I don't turn it off, then it keeps going off. I won't clear it off until I’ve finished what

I’m doing. I still end up doing other stuff before. I'm always on something else like YouTube, but yeah, I just leave it on there.”

Will had a watch that he used instead of his phone because his phone was a distraction. If he had to look at the phone for his schedule, he became engrossed in other things on the phone. When his watch broke, Will reverted to his phone, which made him less likely to stay aware of time and the schedule.

> The smart watch is great. I had a watch. It broke. I had a Gear Fit that shows notifications, calls, and messages from your phone on your wrist, which is really useful, without having to always pick up your phone to see what time it is. I can see what time it is. I can see what messages I have, and if I need to respond to them now or later, and the calls coming through that I can ignore. Since I haven't had it, I have to use the phone all the time, which tends to drag me more into my phone rather than what I'm supposed to be doing. I’m playing my game once again at my desk.
>
> I get distracted by my phone more often. The watch was useful in keeping me on track because I didn't have to draw myself away from what I was doing. I just glanced real quick and then got back to what I'm doing. Since I'm using the phone more, checking the clock on the computers and stuff, and looking at different calendars, I get distracted more.

Rosa used multiple alarms and notifications, but also found them annoying and distracting. She had a wristband watch that reminded her to get up and move around every 15 minutes, but it did not work as well as she hoped. She explained,

> I try to use multiple calendars to organize myself and reminders and alarm clocks and notifications, but I also get distracted by those notifications and alarm clocks. I have this wristband watch that I thought was going to be helping me to get up and move every 15 minutes or so. Then I won’t wear it when I'm reading or just ignore it or snooze it, because I'm reading and I'm feeling like I’m doing well and I need to get done, so I keep reading. So, then I'm not taking my breaks and I get tired and then I get annoyed and then I stop reading.

Sarah described what many students expressed about calendars and reminders. Even though the tools were imperfect and annoying, they still relied on them.

> Oh, they help. I do need them. I can’t do it without them. I have calendars on my computer and on multiple walls in my house. Maybe I shouldn’t have so many reminders,

> but I don't know how I would function without them. If not for calendars and reminders, I would need some person to keep track of what needs to be done, like a personal assistant. I wish I could afford that.

Lists and Notes

Some students found notes and lists useful. Again, lists and notes had to be readily available and visible. Kara placed lists and post-it notes around the house.

> To do lists! I'm a really big fan of to do lists. I think just the thought of having the to do list intrigued me. I have three to do lists laying around the house. One in my kitchen and two on my table. I follow them for the most part. Sometimes, on one of them, I will check off a bunch of things and then others, I'll just look at it. I really lack motivation when it comes to stuff and I think that's the problem.

> I put sticky notes everywhere as far as trying to remember stuff. It won't necessarily be for assignments and stuff or when it's due. The sticky notes are more motivational, and it's like, do your homework or you'll flunk out of school, wake up on time, don't push snooze on your alarm or you're gonna be late.

In the second example, Kara's notes were not to notify her of a specific time, date, or assignment. They were motivational, reminding her to care about those things. Kara also used her phone to make notes, but often forgot to enter the information. Sometimes the act of entering one piece of information distracted her from entering another. Marissa also used lists and post-it notes. She explained, "I write myself notes. Calendars don't work for me for some reason. I don't know why. But if I leave sticky notes all over the place, it seems to work well. But if the note gets lost, I miss appointments." When I asked why she thought the notes worked, she said:

> I can't sleep if they are there. They are visible reminders. I can put a small note wherever I need to put it. Checklists are nice too, because I like the sensation of being able to cross things out. I do create lists that have dates on them. I don't know if I have any of them in here. I do checklists by class and then next to them, I have due dates in parentheses and then use stars to note how important it is.

While Marissa's comments reinforce the finding that reminders had to be visible and accessible, she also talked about the positive feelings associated with crossing things off her list. Kara found to-do lists "intriguing." Both examples illustrate the emotional component to the work of adherence. While this work is often difficult and discouraging, there was satisfaction in the small victories. Using Other People

I was interested in how much support the students had and from whom. I expected to hear that they relied on other people to help them manage time and adhere to the schedule. Several students reported a reliance on other people when younger but realizing that they could not continue to do so as adults.

Faculty. Students who were diagnosed as children had mixed experiences with teachers. Elie talked about a teacher she had in high school who "understood how ADHD worked" and who often stayed after school to help her:

> I thought it was amazing, because I had a lot of people hounding me like, why don't you do well in school, and like, because I have an issue, she was the only person, including my parents, that was like okay, I get what she's going through. She does need a lot more help. So, she always made time after school, like 30 minutes every day. She would always look out for me. I've had teachers that don't even care that I have an IEP, just didn't even say anything. I always thought that was really strange and kind of offensive. I had a couple teachers like that in high school. I haven't seen it that much in college.

They had little to say about college faculty, but preferred teachers who did not change things throughout the semester. Although all the students reported some difficulty keeping to a routine, they found it helpful if faculty provided a consistent structure. Samantha provided examples of the least and most helpful teachers she had in college:

> I usually don't do the teacher surveys, but I did it for that one just to show how every kid in class struggled and it wasn't just me. The teacher wasn't really teaching the class. He would just give us the guide and the practice tests, but then when we take the regular test, it would be all different stuff. We had to read the chapter to figure that stuff out and it wouldn't be very helpful. He was always changing due dates or the way he wanted something done. It was not organized at all. The setup of the class really messed me up.

> I took any class I could with this one drafting teacher. The way that he does things is he has everything in a video that shows how to do it as it's going along, and then he'll pause the video. He basically just provides a lot of resources. He's always there to help. He has lab hours, and lab assistants that are there during the lab hours.

When I asked her to elaborate on what made this instructor helpful, she said:

> It's just the way that he teaches things. He is organized. I know what he wants. He has two books that you use for the entire program. The teacher has set times when he is always available in the lab from Monday through Thursday so if we have any problems, we can just ask him. He's always here to talk and to always help out. He is very accommodating. The routine of turning in homework assignments on the same day every week is helpful.

Sue also provided an example of her experiences with her college teachers saying:

> My first A&P instructor. She had a different method than my A&P 2 teacher. She stayed on topic. She tried to keep things in order. But the second teacher, she went off topic a lot and talked about her personal life, which was not really that bad, but I wasn't really learning anything. I didn't see the point of being in that class. I could just go home and probably get it better than she was explaining it. You could never figure out what she was talking about. That was hard.

Ally liked the teachers and class sizes better at college than in high school, saying, "The professors here are better at staying in touch and staying focused than the teachers I had in high school. I do much better here than in high school even though it's hard. I like the smaller classrooms too.

Family and friends. Elie acknowledged that, until college, she relied on everyone else to tell her what to do and when to do it. When they were no longer there, she did not know how to manage her schedule:

> I'm getting older and I'm certain I realize that since the time I was in school, my parents were hounding me about my grades and teachers were on top of everything. They had me turning homework in so they could look over it before I turned it in to the teachers.

Elie started out at a four-year college, living away from home for the first time. She left after two semesters because she struggled when she was away, saying:

> So, when I went off to college, I fell off my second semester. I didn't blame it on anyone, but I didn't really learn how to do this on my own at any point in time. It was organizational. I had a lot of issues organizing things. I wasn't aware of where I was or what I was doing. It was like I was put in this place. I didn't really know how to do anything college related. I wasn't really taught it. I guess not knowing how to manage my time on top of whatever else affected me.

She took a semester off and then started at the community college where she has learned to plan her time better. When asked if that is because she had her parents again to remind her of things, she said, "No, not really, which is kind of nice. Coming to these realizations on your own feels, I don't know, more effective for me. I feel like I prepared well enough to go back to school and actually succeed."

Marissa also did not want to rely on other people, saying, "I used to use my parents, but not so much anymore. I don't really want them to know what I'm doing anyway." Dylan didn't rely on other people to remind him of things but would take advantage of offers to free up his time. For example, when he got behind on his assignments, his mother would take his son for the night. He would take his stimulant medication and "pull an all-nighter."

People as impediments. Rather than relying on other people to help them with time management, most students described them as distractions, if not impediments. Work and family were commonly cited as reasons why students had trouble completing their work. This is not unique to people with ADHD. All students must find a balance between school and other demands. But, given their difficulty with time and schedules, this was especially problematic for the students in this study.

Dylan planned his schedule one day at a time, usually the night before. He then let everyone know what his schedule was. If a friend or family member wanted him to do something, he made them commit to a time so he could build it into the schedule. He did not want to accommodate last minute requests. He explained:

> If I can plan out my day before it starts, around like 7 or 8 o'clock, if I plan out that whole day, I'm good. When it comes to things like sports, I can plan strategically, but when it comes to schedules, schedule wise, I'll text everybody involved with whatever I'm going to be doing and say, ok, "Are we doing this?" I tell them, "don't ask me in the middle of the day to go somewhere, I'll say no, cos if I do that, it will mess up my plan, and I'll have to change everything else and nothing is gonna get done.

Students often pushed back against the "help" provided by other people, especially parents. Ally expressed irritation that her mother cleaned up her room, saying:

> I live with my parents still and I just went on vacation with my boyfriend for a week. I knew she [her mother] was gonna clean up my room. She sees clutter. Everything is in a certain place and I know where it is. She puts everything in baskets. I don't want to touch it. It's been a week now and I don't want to touch it because it is not how I left it.

No one brought up the idea of using a life coach, but I did ask them about it. Studies show that working with life coaches improves ADHD symptoms and executive functioning in college students (Ahmann, Tuttle, Saviet, and Wright 2018). Some had never thought about it. For others, cost was an issue. However, Marissa summed up the drawbacks to using a life coach, or any other person when she said, "Even the life coach thing, it sounds like you would have to remind them to remind you of something, which means I have to remember to remind them to remind me. I don't really see how that's going to work out very well."

Peers. Dylan found meeting online with fellow students helpful. It was not necessarily to study, but just "getting into a group chat." Someone usually brought up the schedule and reminded the group of upcoming deadlines. It sometimes went beyond the college schedule. Dylan sometimes asked members of the group to remind him of events outside of school. Sue liked study groups, saying, "my way of studying and knowing stuff is having someone there who's doing the same thing as me. If I end up messing up, I know they'll correct me. That's the way I study."

CONCLUSION

In chapter 5, I explored the strategies used by study participants to facilitate the three-way alignment and adhere to the schedule. I presented information about the Office of Disability Services, including the impact of organizational and leadership changes on the provision of accommodations to students with ADHD. During this change, the services became more routinized and more consistent in order to ensure fairness and standardization. In doing so, there was less opportunity for flexibility. In this college, the Office of Disability Services verified the student's disability, assigned accommodations, conveyed them to the instructors, and directly assisted students as needed with things like reading or monitoring tests. The office did not offer diagnostic services, treatment, or counseling, nor did it provide instruction or guidance on the accommodations themselves. For example, the staff could arrange for a note-taker, but did not assist with or teach the students note-taking skills. The purpose of the Office of Disability Services was solely to comply with the requirements of the American's with Disability Act.

Only half of the study participants routinely used accommodations, consistent with the estimates provided by the Disability Services Coordinator. Those who used the services believed the accommodations helped them be more successful. Most only used the accommodations in selected circumstances, depending on such things as class size, the course format (face to face or online), and the subject matter. No one reported asking for or receiving accommodations other than a quiet place for testing, extra time on tests, or breaks during class times, although others were available. No one reported discussing their accommodations with instructors except to remind them of the extra time on tests or discuss taking the test through the Office of Disability Services. The students also had little contact with the Disability Services staff except to arrange for quiet testing. No one expected it or expressed concern over this lack of contact, nor did they

express any issues with the policies or procedures. I thought that the policy requiring students to request testing accommodations 72 hours in advance might have caused problems, but no one reported that this was a hardship.

The rest of the study participants chose not to use any accommodations. The reasons varied. Some felt that having accommodations in college might hinder them in the "real world." Some viewed accommodations as a crutch and wanted to prove they could succeed without them. Others mentioned the fear of being stigmatized by teachers and fellow students. One student was afraid that potential employers would learn of his ADHD and not hire him because of it. The Disability Services Coordinator assured me that this was not possible, but it does lend insight into the power of stigma and how it could prevent students from getting the help they need. Finally, some students realized that the available accommodations did not address their specific problems.

The available accommodations did not address the complex and overlapping challenges faced by the study participants, nor could they, because they do not address the underlying executive function challenges or problems with the three-way alignment. Except for extra time on tests, accommodations for ADHD are only used in the college setting and do not follow the students home, where most of the work occurred. This may explain their limited effectiveness for the students who used them as well as why others do not use them at all.

The Office of Disability Services offered tools within its authority to serve the students in this study. Nevertheless, the scope of the accommodations was situated firmly in the hierarchical structure of the department, the college, the ruling bodies the college reported to, and the federal government through its ADA requirements. In large part, the educational system does not adapt to the individual with ADHD or other disability. Although required by law to provide

accommodations, educational organizations and programs assist the individual to adapt, not the other way around. In this scenario, accommodation implies that individuals must change to meet the requirements of the institution, placing responsibility squarely on the students. The structures and laws set forth to "level the playing field" for students with ADHD created additional work for them and further taxed their ability to maintain the three-way alignment.

In the second half of chapter 5, I discussed additional strategies and tools students used to help them adhere to the schedule. One was the use of medication. At some time in their lives, every student in this study had taken medication, although most of them were not doing so during the study period. I was not surprised by this because medication is a first line treatment choice. A trial run on a stimulant medication is sometimes used to confirm an ADHD diagnosis, even though these drugs have similar effects on people without ADHD (Rappaport 1980) and are therefore not a valid diagnostic tool. All the students said medication was effective in improving attention, focus and energy when they chose to take them. Because students usually took them only when needing to complete a specific task, their usefulness was limited. The drugs were less effective in maintaining the three-way alignment and adhering to the schedule over time because they were not taken consistently due to side effects, cost, and fear of dependency. Most students eventually gave up using medication as a tool. The drugs worked, but at too great a cost.

The use of calendars and planners was a commonly used strategy. Although both are organizational/scheduling systems, the students preferred calendars because of their simplicity and visibility. They saw planners as more cumbersome and difficult to use. With either system, the students had to remember to enter the information, have access to the calendar or planner when needed, remember to check it, interpret the notes they had made, and follow through on the

action without becoming distracted. These tools required a great deal of work to implement successfully; work that most of the students felt was not always worth the effort expended.

Another strategy was the use of electronic devices consisting of computers, smart watches and phones. These devices allowed the students to keep track of time and schedules in a format that was nearly always available to them. Alerts provided audible and visual reminders of upcoming events/deadlines. However, as with physical calendars and planners, making electronic devices work effectively required initiative and persistence. Even when the information was entered correctly, the students had difficulty remembering to update, access, or follow through with it. The alerts were often ignored. Because cell phones and computers provided access to text messaging, the Internet, social media, and video games, they served as powerful distractions. In addition to remembering to input and update the schedule, they had to set and manage the reminders, and resist the urge to use the device for other purposes. In this situation, the electronic device became yet another distraction they had to work to overcome.

Several students found written notes to be helpful. Placed strategically throughout the house, notes allowed them to have to have easy access to the information. Written lists served a similar purpose. Students found it harder to ignore notes and lists because they were more visible. They also served as motivators for some students. While largely perceived as helpful, lists and notes shared some of the same drawbacks as the other organizational tools, most notably, keeping them updated and visible

Before becoming adults, the students often relied on parents or teachers for support and reminders. Once in college, this same level of support was not always available, or the student did not want to use it. Instead, the students sought greater self-reliance, viewing others as a crutch that had to be relinquished as they moved into adulthood. None sought the assistance of

their instructors once in college. Two students found studying with other people helpful, but people were more often a distraction than a help.

In summary. these strategies, tools, and accommodations placed additional demands on the students' attention, memory, and focus, requiring additional work and effort above and beyond that required of the coursework itself. This placed an extra burden on the students that they were often ill-equipped to handle. In Chapter 6, I explore the impact of this burden, and other barriers to maintaining the three-way alignment and getting the work done.

CHAPTER 6

The Work of Adherence

"I may not like it, but it's a necessity of my life."

In Chapter 4, I discussed how the student participants experienced time and worked to maintain a three-way alignment between the schedule, inner experience of time, and clock time. I included a discussion of how the alignment sometimes breaks down. In Chapter 5, I examined strategies used by the students to maintain the three-way alignment, including a discussion of the Office of Disability Services and the accommodations it provided. In Chapter 6, I explore the largely unobserved or unacknowledged work of adherence. I also examine factors that helped or hindered the work process.

Adherence is not just a matter of following instruction. It involves levels of decision making and considerable work. There is an underlying assumption that students should adhere to the course expectations as decided by the instructor and stated in the syllabus. These expectations are accepted without question. The instructor creates a schedule of assignments that is assumed to be rational, when the decisions may instead reflect the needs of an instructor juggling multiple classes. Still, outside of the prescribed accommodations, the students must adhere or risk failing the course. McCoy (2009:129) states, "Viewed from this perspective, the concept of adherence can be seen as a historical category steeped in relevancies of power and social control."

The work of adherence may be glossed over as just a matter of remembering and following instructions when it is far more complex, especially in the context of chronic illness or disability. Chronic conditions such as ADHD have a social dimension that cannot be overlooked Conrad and Bury (2008). Corbin and Strauss (1985) identified three types of work associated

with chronic illness. These include illness work, biographical work, and everyday work. Elements of all of these are evident in the lives of my student participants. Their illness work included efforts to treat and manage the symptoms of ADHD, primarily with medications. Biographical work was seen in their descriptions of how they saw themselves as persons "with" ADHD. Their everyday work was seen in the students' use of multiple strategies to manage time and schedules. This work required the students to "reorganize their daily lives in a way that integrates the illness and its management (Huyard et al. 2019:6).

Arising primarily out of research on medication and treatment compliance, adherence has traditionally been viewed from a normative perspective, with the emphasis on why someone does or does not comply. The consciously noncompliant person is seen as deviant, even though the person may have very rational reasons (Donovan and Blake 1992). Unintentional noncompliance typically falls into one of three categories: forgetfulness, practical barriers, and carelessness (Gadkari and McHorney 2012). Huyard and colleagues (2019:6) argue for a different approach saying, "going farther in the analysis of the work of patients, nonadherence can be conceptualised as a discrepancy between the task that had been prescribed and the task that has actually been performed." They concluded from their research that chronic conditions have their own temporal rhythms which intersect with the rhythms of other demands and expectations. Scheduling issues were mentioned as the most common barrier to adherence. Finally, they found that there were social dimensions to the work of adherence, and that this work was often invisible.

Initiating and completing an activity in order to adhere to the schedule requires a complex understanding of the steps involved, the ability to transition from one step to another, and enough focus to complete the steps. The ability to do work also requires the coordination of multiple

external conditions. McCoy refers to this as “time-space-pill coordination” (2009:139). In her study, a dose of medication could only be completed if the person recognized it was time to take the pills, had them available, had a place to take them, had access to water, a glass, etc. These things had to be available *when the dose was due.* The dose could be missed if any of these variables were absent. What seemed like a simple action (taking a pill) required a complex set of circumstances, repeated multiple times throughout the day. Huyard and colleagues (2019) support this complexity, finding that adherence requires intense coordination of up to six different strategies working together. They emphasize “the importance of the invisible work that goes into building and maintaining a treatment routine that is a frequently repeated action sequence. (p. 15). In my study, I refer to this type of work as “time-space-activity” coordination.

According to Dorothy Smith, categories of discourse (e.g. writing a paper, taking tests, completing homework) have “boundaries of observability beneath which a subterranean life continues” (1987:162). In her example of writing up a science experiment, she explains:

> Clearly things were done around the doing of the experiment that were essential to, but not entered into or made accountable within the “experimental procedure.” Its boundaries were organized conceptually to select from a locally indivisible work process, some aspects to be taken as part of the work process and other discounted. All were done. All were necessary. But only some were to be made reportable-observable within the textual mode of teaching science (p. 162).

Meeting the college schedule and course expectations requires “anchorage in an economy of material conditions, time, and effort” that “does not appear as work” Smith (1987:163). Describing the work of mothers, but applicable to this study, Smith says, “Their thinking, the effort and time they have put in, and the varying material conditions under which the work is done do not appear” (p.164). I have established that, for my study participants, there were additional layers of work above and beyond what was necessary to complete their course work.

MOTIVATION

All the students in this study talked about motivation. The topic presented in various ways and with differing levels of impact. Consistent with other research on college students with ADHD, my study participants were highly motivated to finish their college degrees and be successful in their chosen fields. They were hard working and committed. In that respect, they were no different from many other college students. These long-term goals served as principal driving forces to do the work. For some, their motivators were personal and specific. For Diego, his family provided much of his motivation to attend college:

> Oh, for me personally, I guess I could say it's my mom. She always like, she always has, um, wanted me to do more, and I always wanted to be the best that I could be, and it's really everybody that I promised who are unfortunately not here with me anymore, you know, they're passed on. I promised everyone that I was going to go to college. Like my grandmother, I always told her, and now that she's not here no more, that's my way of keeping that promise. So that's what keeps me going even when I don't feel like doing this anymore. I'll be like, hey, you promised all of these people that this is what you're gonna do. I can't let them down, so that's what I have to do. I have to get up in the morning. Do you think I want to get up at 7 o'clock in the morning to get into traffic and get into an 8 o'clock class? But nah, I do that, because that is what I have to do.

Diego also wanted to accomplish more than others in his family had, saying:

> It's like I said, it's just the same thing of keeping that promise in my head, but it's also like, I think to myself like, what I could be if I just don't do this and I give up, and I leave college. And I think to myself, like, hey bro, you could be that person. Like, nothing against my cousin, but that man, you know what I'm saying? That man got like 5 kids

Will's primary motivation was also his family. He said, "I want to provide for them. I'm tired of working two jobs and spending my weekends working. It drives me crazy. My son loves me to death, but he doesn't get as much of my time as he deserves. Taking care my family is the biggest one." Additionally. Will expressed that his motivation was both internal and external, explaining:

> I want to graduate. I can't afford to fail, because if I do, my GPA falls, and I don't get financial aid. If I fail the class, I have to take it again and I don't want to take it again. I

> get tuition reimbursement from work, so if I don't pass the class, I don't get that money back. Money is a good motivator. Work will pay for it because it's work-related and they're trying to move me into a better position, but I have to have education also. I don't accept failure, and this kind of goes back to my autism theory. I don't like failing at things. I want to be good at things to the point where it's like a superiority complex. I want to be better than that, so my motivation is there. The second time will be even worse even if I understand it better. If it's something I don't want to do, I want to get it over with as fast as I can.

For Marissa, one of her primary motivators was her self-esteem. She lost a scholarship because she failed several courses in previous semesters. She relayed that succeeding made her feel good about herself. Elie shared a similar story about wanting to do it for herself this time. Her original motivation to attend college had been external, primarily to please her parents. For her, it was not successful. Only when she began to "do it for herself," did her "whole perspective change."

Samantha was determined not to let ADHD keep her from achieving her goals, but was struggling nonetheless:

> At this point in my life, I've basically erased most of my ADD. Put it away. It does bother me sometimes, but if I do not graduate college and I do not get good grades, I don't have any chance at life. So, for me it's more of a survival thing than anything. I have to do this. So, it's like, I won't be able to live if I don't do what I'm doing now. There is no way around it.

Despite her assertion that she had "erased" her ADHD, she acknowledged that it still affected her, perhaps more than she could admit. Without pausing, her next statement was, "Everything is going downhill at the moment."

There is nothing remarkable that differentiates a student with ADHD from any other with respect to their primary motivation to attend college. However, their long-term goals did not always motivate the study participants to do the everyday work necessary to achieve them. All the students were aware that they must complete the course requirements and pass their classes in order to graduate. Many had struggled academically in the past. As seen in Chapter 5, they

used, or at least attempted to use, various strategies and tools. Every semester began with an earnest desire to put forth a sustained effort and complete the work. Sometimes they did and sometimes they did not. When they did not, it was not because they lacked motivation to achieve their long-term goals. Instead, they found it difficult to call up the immediate motivation to do the work at hand.

DOING THE WORK

Stress, Procrastination, and the Deadline

Adhering to a schedule of activities implies that there is a deadline for completing the work. As discussed in Chapter 5, standard accommodations for students with ADHD include extended deadlines for completing tests and assignments, based on the assumption that they need more time to complete the work compared to someone without ADHD. While several of my study participants used extended time for testing, none reported using or requesting extra time for other types of assignments. In fact, the deadline served as motivation to do the work. Deadlines created considerable stress but were essential to getting the work done. Still, every student described instances of procrastination, where they waited until the last minute to start the work.

Procrastination is the tendency to postpone a task that must be completed by a deadline (Steel 2007). It is not a problem specific to ADHD. At least half of college students report a problem with procrastination (Rozental et al. 2018). Procrastination is not listed as an official symptom of ADHD in the Diagnostic and Statistical Manual of Mental Disorders (APA 2014), although behaviors associated with procrastination are commonly seen with ADHD (Johnson and Bloom 1995; Langberg 2008). Still, procrastination is included in some diagnostic checklists and is often included in psychotherapies for adults with ADHD (Niermann and Scheres 2014;

Rozental et al. 2018). Procrastination in adults with ADHD has been linked to high impulsivity (Schouwenburg and Lay 1995), personality traits (Johnson and Bloom 1995), anxiety (Miller 2007), and inattention (Niermann and Scheres 2014). Miller (2007) found that college students with ADHD who were identified as procrastinators had significantly higher cumulative average ratings of anxiety than a control group. The students in my study expressed a number of emotions in response to getting the work done, but anxiety was prominent throughout the interviews.

Ferrari and Sanders (2006) suggest that there are decisional procrastinators, avoidance procrastinators, and arousal procrastinators. Decisional procrastinators put off making important decisions or circumvent decision-making situations. Avoidance procrastinators delay tasks because they doubt their ability to do the task successfully. Arousal procrastinators rely on the energy and rush of anxiety caused by an impending deadline. Steel (2010) questions the validity of the tripartite model of procrastination, finding that irrationality and susceptibility to temptation better explain procrastination. Islas (2018) reported that procrastination tendencies in adults are present on a continuum consisting of arousal, avoidant, and decisional behaviors over time. Arousal procrastinators, in particular, believe that they work better under pressure (Ferrari, Johnson, and McCown (1995) but this was found not to be true (Ferrari 2000). Instead, the quality of the work suffers, and they may not complete the task at all due to poor preparation, lack of resources, and misjudgment of the time needed to complete the task.

All my study participants talked about procrastination, providing examples to support the models provided above. Least evident in the interviews were examples of avoidant procrastination. The students were confident in their academic abilities. No one talked about avoiding assignments because they did not think they could do them. Some reported

procrastinating because there were other things they preferred to be doing. The most common examples exemplify arousal procrastination. Although Ferrari (2001) found no significant difference in the subtypes among adults with ADHD, the study was limited by a small sample size. One proposed etiology of ADHD is called the low arousal theory, where baseline levels of dopamine are lower than normal, causing the person to compensate by seeking other sources of stimulation (Petrescu-Ghenea et al. 2013). The medications used to treat ADHD elevate catecholamine levels, thereby increasing attention, focus, and energy. Anxiety triggers the body's fight-or-flight response, flooding the system with norepinephrine and cortisol, thereby increasing energy and attention (Henry 2019), producing an effect similar to stimulant medications. Numerous studies link all three of these neurotransmitters to ADHD (Bierdman and Spencer 1999). It stands to reason that the students used the stress of the deadline to get them moving.

The student interviews showed a connection between procrastination, stress, and deadlines. Often, a decision to do the work was made only when the student could no longer tolerate the anxiety associated with procrastination, or when they came up against the deadline. These usually happened at the same time. Last minute deadlines created an urgency that helped push the students forward. When a deadline neared, the anxiety built, and a moment of decision occurred. A choice was made to avoid the source of the stress completely or do the work. The farther away the deadline, the easier it was to postpone action. Awareness of the deadline alone did not create the conditions for completing the work. The stress and anxiety of an imminent deadline did. The stress served as motivation to get started, but also worked against them because stress is linked to inattention, hyperactivity, and impulsivity (Salla et al. 2019).

According to Samantha, stress got her moving and served as an immediate motivator. It did not make doing the work any less difficult, but this "good stress" helped her at least get started. She relayed the following, "Well, um, stress gets me going, so instead of stress holding me back, I get very ambitious. And even though it can be difficult doing the work, sometimes it's good stress." Samantha explained that she normally got her work done on time. She attributed much of this to last minute stress. At the same time, this behavior produced mixed results. The work was completed, but the quality suffered to the extent that it caused additional stress and anxiety. She shared the following story later in the semester:

> Most of the time I did my homework on time. When the semester first started, I had a hard time getting my books. I had to borrow money from my mom. I had to tell my dad that I couldn't pay all of the rent. And so I had already kick started but it just so happened that there was a lot more work to do in the drafting class up front and now there isn't much, so it kinda switched. I was able to do everything last minute that I needed to do but I was really upset about it. I was not happy about it. It was not a good feeling. So I was just like, ok, I need to do things on time. I need to not wait until the last minute. I guess the stress can help, but then there is a certain amount where it piles up, and there I am crying while writing out my vocabulary words.

Rosa saw the stress of waiting until the last minute as something that increased her productivity. Like Samantha, it was a mixed blessing. When she completed her work ahead of time, it was good. When she did not leave enough time, she knew it was poor quality work. Rosa explained the relationship between procrastination, stress, and the deadline this way:

> Procrastination! It feels like I'm more productive if I do work in a stressful situation. Like, I'd turn things in the night before and try to make it in one minute before it's due to submit. I did that, although it hurt sometimes and I had to go deal with that and then I couldn't finish it, and my professor was like, you should've turned this in earlier so we could talk about it. It still happens. I'm working on it.

Ally described an example of procrastinating to the point where, if something in her life came up, the assignment got pushed back, leaving little time to do the work. This created the stress that produced the motivation she sought, but the work suffered. She acknowledged that it

was hard not to procrastinate. She eventually did the work, although not well, and was frustrated that she was once again back in the cycle.

> Sometimes it caused me to not be able to do my homework when I wanted to get it done. Like if I procrastinated a bit, like the last two days I did, and I ran into a little issue just because there were some stressful things going on that had put me behind a little bit. So, all weekend I had to work, which means I can't really do everything I need to. But I'll be able to do it. I'll have time, it's just...yeah.

> I mean, there is life that gets in the way. I could do my homework, but I could also do it this time, this time, and this time, and, you know, spend time with my friends or the person I have been with for 2 years. I had a whole plan on how I was going to get my homework done three weeks ago and everything went to plan. Then all of the sudden, life just happened, and it threw the whole schedule off. It's hard to say no to the feelings of like, oh yeah, I can do it later.

Students sometimes reported a feeling of paralysis when faced with a task or project. They were aware of the approaching deadline, felt the pressure, had the desire to move forward, but made little progress. Elie shared an example of when she waited until the last minute. It backfired and she could not complete the assignment.

In the situations described above, stress sometimes served as a catalyst to get the work done. Still, it clearly caused the students some distress and it did not always work. There were times when the stress associated with procrastination interfered with getting the work done. Diamond explained:

> Last semester, a lot of procrastination happened with certain projects. For political science it would be discussion board and stuff like that. It had to be submitted by Friday and then you had two days to comment on it. But you could submit it as early as the previous Monday. I was doing that so that I had the entire week to comment on other people's posts and do any of my other stuff that I had to do. And then I stopped doing that and I missed the last four or five. So that's something I definitely don't want to bring over into the next semester. Literally waiting until the last minute, because it's not my best work. I'm wasn't as relaxed when I was doing it. I wasn't as focused. And then I got to a point where I thought it is not good enough anyway, so I threw it away.

She understood that she worked better and felt more focused when she was relaxed, but still put things off. Then, knowing that her last-minute work would not be good, she gave up. Diamond

claimed she was making progress with her tendency toward procrastination, saying, “Last semester, a lot of procrastination happened. Now, I procrastinate with certain projects.” Some of these “projects” were delaying her graduation from college. She was nearing the end of her program of study, but still had several general education courses to take. When asked why she had not already taken these core courses, she said, “Because I procrastinated and waited until the end to register.”

Most students reported they needed the stress of a deadline in order to begin an assignment. Sue said, “I feel like I do better when the deadline is coming up. When I have a lot of time, I waste it. But I think when I do have time, I probably do better work, but I need that deadline to get me going.” Marissa concurred, saying:

> I'm not a big fan of time. We talked about it earlier. I need the adrenaline of deadlines in order to get anything done. So, I may not like it, but it is a necessity of my life. I honestly tried to start things, but I couldn’t make myself do it. I’d sit there and stare at the page and until I had the stress of a deadline, there’s no way I was going to get it done so there is no point in doing it.

It is clear that the quality of their work would improve if the students spent more time on it. Despite their protests that they worked better under pressure, they were aware that it was not true. They knew the work suffered as a result of waiting until the last minute but procrastinated anyway. One accommodation for students with ADHD is having additional time to complete assignments, but this would appear to be of no benefit to this group of students. It would just delay the deadline and therefore the work.

For these students, putting off the work may be simple procrastination, like most people experience from time to time. It may or may not be related to their ADHD diagnosis. Still, it was a common theme in the interviews. Some students expressed a sense of powerlessness over their tendency to procrastinate, but for Marissa, procrastination was a reasonably successful time

saving strategy. She knew that working too far in advance was a waste of time. She would get no productive work done without the impending deadline, so there was no point in trying.

WORK PROCESSES

Starting the Work

In earlier sections of this chapter, I described how achieving a favorable frame of mind was difficult for the students in my study. Still, they were often able to achieve the three-way alignment, find the motivation, and get past their tendencies toward procrastination to arrive at a moment of action. In her study of adherence to a prescribed schedule of pill taking, McCoy (2009:138) acknowledged that, in addition to an awareness of when to take the pills, "completing the dose requires the physical act of taking the medication." It was not enough to realize that the time had come. The conditions for pill taking also had to be present. This involved a type of anticipatory work, or "arranging to be in a place or frame of mind favourable (sic) to the work of making the three-way alignment between inner experience, clock time, and the requirements of the pill schedule" (2009:139).

The students in my study talked about their anticipatory work. Diego spoke of creating a specific schedule to avoid experiencing "oh no" moments. Will, Rosa, and Dylan checked the time obsessively to "hold onto it." Sarah set frequent alarms to remind her to do things. Ally wrote on her arm, so she always knew what "to do next." Ally, Will, Sarah, and Elie reported being "OCD" to compensate for their ADHD and do the work. Despite these efforts, bridging the gap between awareness and action was difficult and involved a "visible form of work" (McCoy 2009:139).

In order to start an assignment, the students had to overcome the internal obstacles described earlier, assure that all the required materials were available, and control distractions as

much as possible. All these conditions had to be present over sustained and repeated periods of time. This proved difficult for all the students in one form or another.

Elie had a hard time knowing where or how to start unless she had very specific directions. If those directions did not exist, and she had to create a starting point herself, she was likely to put off the work. When talking about having to write a paper, she explained:

> If I had something like a prompt on exactly where to start, I could say what I want to say. Um, if I read something, and I didn't even know where to begin, I'd probably put that off until the last minute because I don't even know where to start. But if I had an idea of what I would say, I usually just pick it up right away.

Even when she sat down to do the work, Samantha had trouble focusing enough to get started:

> Sometimes my mind is just too distracted and then I'm like ok, I need to just calm down, but sometimes my mind is racing so fast that it's hard to do anything at all. It's not even a motivation thing, it's just that my mind is thinking about so many other things at the same time, and it could be anything from the new president to this café.

Diego attributed his difficulty starting things to an ongoing internal debate where one part of him was ready and another part was not. This was true regardless of the type of work. Getting started depended on which side won the debate. He explained, "Yeah, but starting things is a problem, because I'd look at it, no matter what it was, and think about all of the reasons it doesn't need to be done, but then I'll be like, I should probably do it though."

Sarah expressed frustration with starting her schoolwork. She had an intense desire to get the work done, but had trouble prioritizing the various tasks she needed to complete. Because she had trouble clearing her mind, she could not focus on the task at hand. Even when she could concentrate on an assignment, Sarah expressed difficulty knowing where to start:

> Like I said, I made sure my assignments were done when they were due, but most of the time, I was freaking out and sitting at the computer and sometimes I even cry because I tried and it's so weird. I'm always bouncing from one thing to another.

> I would sit there and read the assignment over and over and be like, OK, I don't even know where to start on this. I don't even know how to start it. I'd take one small thing and turn it into a big deal, and it consumes me.

When asked about starting assignments, Dylan voiced that he did not really have a problem. In fact, he claimed to work best with brief, unplanned bursts of activity. However, even as he said the words, he knew it was not entirely true:

> It depends on the situation. Sometimes, depending on the topic, I don't really work in a structured timeframe. It's just short bursts of productivity. I do that a lot. I don't have trouble mapping things out and getting started on thing. Actually, that's probably a lie… hmm, I probably do. I have to think about that.

Dylan also reported that he could start an assignment, stop and do something else, then go back and pick it up, saying, "I'd be doing work and I'd get to a stopping point, or point that I didn't really want to work anymore. Then, go do something else for 30 minutes and come back and start another task." Although he started to work again, it was often on "another task," suggesting that he did not finish the first one.

Diamond noted that she had an easier time doing an assignment if she had not gotten too far behind, saying, "As long as I can start early enough, then I'm fine. But if it's too late, I start to not care and I procrastinate. If I start early enough, and do a little bit every day, it feels a lot better and I retain more of the information." Will preferred "getting stuff done all at once in the beginning of the day." As the day went by, he was less likely to start anything. Sue was able to start her work *if* she could remember it and *if* she did not get distracted:

> As soon as I know what I'm supposed to do, I set the reminder then and there. I do have a thing where I forget what else was there and I just forget completely, but then it comes back to me randomly. When that happens, that's when I put it in my phone. I always get distracted. I just do it whenever I can.

Losing things necessary to begin an activity is a symptom of ADHD (American Psychiatric Association 2013a). Neil Peterson (2017) lists 4 reasons for losing track of objects

including inattention, disorganization, forgetfulness, and what he humorously calls the “milk in the cupboard syndrome,” otherwise known as the “keys in the dishwasher disorder.” Items are placed in unusual places that make it nearly impossible to locate them. When the time came to start a project, the students often did not have the needed resources. They may have forgotten to purchase supplies, could not find a workspace free of clutter, or had lost papers and jump drives. Previous work may not have been saved or could not be located. They may have forgotten how the instructor explained the assignment in class. Having things available when and where needed was a constant challenge. Considerable time was spent finding and gathering the needed materials. As one person said, “Keeping up with items such as my wallet, keys, paperwork etc. is hard. I spend hours just looking for stuff.”

The study participants preferred, whenever possible, to start and finish an assignment in one sitting. This eliminated the need to get organized again, remember where they left off, find everything they needed, and find the motivation to continue the project. It was often difficult for them to get back to a task if it took more than one sitting, because it created multiple “getting started” points.

Staying the Course or Getting off Track

A common symptom of ADHD is the inability to focus on the task at hand for any length of time. It can be difficult for a person with ADHD to give sustained attention to a specific activity. The students in this study reported that they frequently got off track and had trouble finishing what they started. They had to actively create conditions that helped them stick with something. Diamond found a way to maintain focus, albeit a dysfunctional one:

> I need to do things with noise. I took up smoking a while back, because I couldn't drive and not do something else and that made it feel better. To me, that was the safest thing I could do. I didn’t even inhale. I just think I like having something in my hand while I was driving. I’ll still have something in my hand when I drive now. It’s difficult for me to

> concentrate on the road if I do nothing else whatsoever. I space out so it keeps me grounded.

Consistent with the research on ADHD, several students voiced a need for external stimulation to stay focused. According to Rotz and Wright (2005), the "ADHD brain" looks for high-stimulation experiences to trigger the release of dopamine, a neurotransmitter associated with attention and pleasure. People with ADHD frequently engage in seemingly unrelated tasks such as listening to music, fidgeting, doodling, or moving around to improve concentration. As Diamond noted above, these actions serve to ground her in the moment, allowing her to push past the lack of focus. She took up smoking so she was physically doing something with her hands in situations where she could not move around.

Rosa also reported a need for stimulation in the form of movement and verbalization to get her work done, saying:

> When I'm talking and interacting, I'm fine. When I'm sitting, I cannot stay focused. I cannot concentrate and then I gradually feel like I'm numb, like physically and emotionally, my brain is just… It's crazy. So I can sit there and stare at pages for hours and not pick up on anything because my mind is everywhere else. Even if it's interesting and something I enjoy, if I sit still without talking and without interacting, my mind won't focus. I have to be involved constantly, like be reinforced and redirected.

Several people reported needing music or a television in the background while they studied. Others had to keep their brains stimulated or it would shut down, like a computer goes into sleep mode when not used for a while. Marissa reported that she was more likely to go back to a task if she could keep her mind activated. She sought out interests and habits unrelated to her schoolwork to do this:

> My first semester, I was trying to better myself in general. Trying to have more healthy habits. This semester, I've been working on environmental conservation. I've been trying to do recycling and use less water and turn off lights. It's little things that I do to keep my mind working, and if my mind doesn't shut off, I don't have to work as hard to turn it back on.

Getting Back on Track or Giving Up

Despite starting the semester with enthusiasm, strategies, and conviction, not one of the students was able to fully adhere to the schedule or consistently use the strategies. They often felt defeated, especially as the semester progressed. Diamond always set goals for herself, and developed strategies to achieve these goals, although her goals were somewhat vague. She explained, “My goal this semester was to know exactly when things need to be done so I had adequate time to do them. That way, when exam time comes, I can keep something in my brain for a day and finish the assignment and then try to figure out how to remember it.” Yet, even during our first interview early in the semester, Diamond hinted that she might not be able to achieve her goals. She knew it would not take much for her plans to fall apart, reporting, “This semester, so far I’ve started really strong. Like making sure I’m on top of my assignments and following my calendar and stuff like that, and it’ll just be a day or week that I’m off and it’ll just throw everything off.” Her prediction was accurate. At the second interview, she said:

> As the semester went on, it got worse. I’m like, it’s not gonna get done, so don't even waste brainpower trying to do it. Which, I mean, I don't know. And it became mathematical for me. I didn’t do X, Y, and Z, so the next thing isn’t going to happen, so don't bother.

There were times when Diamond gave up on finishing an assignment. Within the context of her statement above, she calculated that she was not going to have enough to time finish, so she sometimes gave up. There was a logic to her thinking. She knew she was walking a tightrope and could fall off at any moment. In fact, she did fall off several times. She expressed frustration at finding herself in trouble yet again. Still, she looked at her situation and made conscious decisions about what she could or could not do in the time she had left. Given that people with ADHD often have trouble with time perception, recognition, and reproduction, her assessment

may or may not have been accurate (Prevatt et al. 2001). Ultimately, Diamond was successful more often than not. She was able to complete most assignments, but not to her satisfaction:

> Even though it was hard for me to focus on multiple things, I usually got the work done. I'm just really dissatisfied when I have work that's not close to perfect, or if I am not the best I can be. But I feel good about myself with the work that I do.

Kara's story echoed Diamond's in that she set goals for herself, but tended to give up when something went wrong:

> Some days were different than others. Some days I got thrown off and got back on track and other days that motivation did not exist. My anxiety played a big role in it I think. I tried to set these realistic goals so I knew that I could achieve them, but then one thing went wrong, so I kind of just threw it all down the drain. Once I'm aware that I'm thrown off and my whole day has been altered, I just say forget it. Now it's midnight or one o'clock in the morning and my mind's racing and I think of all the things that I have do the next day. I usually will just pull an all-nighter. Sometimes my mom will help, and she'll keep the kids overnight and I'll take my medicine and I'll just stay up all night.

Kara could sometimes overcome the distractions. Other times, she could not get back on track. It was not that the distraction was too great to recover from, but rather that she lacked the motivation to rebound and begin again. Kara often made the decision to throw it all away rather than persevere, which caused her considerable anxiety. Similarly, Sarah did not always finish assignments and expressed feeling overwhelmed by this saying, "I start things and I don't finish them. It's very overwhelming for me because I feel like I have to get everything done." On recovering from a setback, Marissa explained:

> It depends on how immediately I needed to get back to that thing. Like, if I was writing a paper that was due today, I could pretty quickly get back to it, because it's a necessity. But if I was doing something that didn't even have a deadline, I probably wouldn't get back to it anytime soon or at all.

Here again we see the significance of time and the need for a deadline to get back on track. The urgency of the situation served to activate a response from Marissa. Without the urgency, she was unlikely to "go back to it."

MANAGING THE PROBLEM OF WILL

Volition

Even when time, attention, focus, motivation, memory, strategies, and resources aligned, there was no guarantee that the students would do the work and meet the deadline. Adherence to the schedule required an act of volition. McCoy (2009:139) refers to this as, "managing the problem of will." She says:

> For some people some or even most of the time, the act of taking pills follows routinely on the act of determining dose time; the conscious and describable work they do around their medication schedule is oriented to managing the alignment between inner consciousness, clock time, the pill schedule, the physical availability of the pills and necessary accompaniments, and the presence of other people. There is, however, no inevitable causal link between recognizing dose time and taking pills, even when the pills are ready at hand. Taking the pills demands a mental and emotional movement of volition that extends into physical action. But the movement of volition may not happen. What may happen is a stronger movement of revulsion or anger. There is always the potential to balk at pill time (P. 139).

Even when the circumstances were ideal, the students sometimes chose not to complete the work. They did not attribute their inaction to a lack of motivation or procrastination, nor did they associate it with a failure of the three-way alignment, or problems with attention, focus, or memory. To the contrary, they simply did not feel like doing the work at *that* time, even if it was the *perfect* time.

Lezac (1995) considers volition one of the four main executive functions. It involves a conscious decision to act in an intentional and purposeful manner to achieve a desired state. In Lezak's definition, there is "willful intentionality" by a "freely choosing agent." ADHD researcher Thomas Brown (2008:13) uses the term "activation" saying, "Many persons with ADD report that they often are aware of specific tasks they need, want, and intend to do, but are unable to get themselves to begin the necessary actions." This "problem of will" (McCoy 2009) appeared throughout my student interviews.

Diego explained, “Yeah, but starting things is a problem, because I’ll look at it, no matter what it is, and think about all of the reasons it doesn’t need to be done, but then I’ll be like, I should probably do it though.” He described an internal struggle saying, “you have to debate with yourself and you tell yourself you have to do this, but I don’t want to do that. But you have to do it.” McCoy’s (2009:141) study participants had a similar internal conversation with a “supervisory self,” who tries to cajole them into compliance. With Diego, the conditions may have been optimal, but he still did not want to do ‘it” or didn’t want to do it “now.” So, he tried to talk himself into it. Ally described a similar experience, saying, “Yeah, usually it wasn’t me replacing things like, oh I could be doing this instead of that. It was usually just me being like, I just don’t want to do this right now.” According to McCoy (2009):

> The mental act of achieving the three-way alignment is easier in some frames of mind and harder in others, so the strategy is an anticipatory one of putting oneself into – or keeping oneself from – certain places and circumstances which are expected to generate conditions that facilitate or impede the desired mental state (P. 135).

While some students in this study attempted to create favorable conditions, or avoid unfavorable ones, others had a strong oppositional reaction, sometimes resulting in a refusal to do the work. Kara described having the “perfect opportunity to do homework,” saying:

> I can look my kids in the face, or I can look at my responsibilities and have zero motivation. Like there was a night this semester when I got them all to sleep at 8 o’clock. Perfect opportunity for me to do homework and I walked downstairs, opened my laptop, looked at the TV, and went back and forth. And the thing is, I knew I had things to do and I chose the TV over doing those things. The thing is though, I was looking for shows on TV I had previously recorded to avoid responsibilities (laughs). I was just looking for anything to avoid responsibilities, because I just didn’t feel like it.

In this example, Kara believed that her children and other responsibilities should have been enough motivation to do the work, and often they were. She recognized these as motivators, but neither was enough to push Kara into action at that moment. Even when presented with the perfect opportunity to get her work done (the right environment, time, and materials), she chose

not to do it. Here, the television served as an external distraction. Unlike situations where external distractions are out of a person's control, Kara consciously and purposely planned for that exact moment by recording television programs she could later use an excuse to "avoid responsibility. Diamond shared a similar example:

> I was so confident that I would get there early to take the test and then I get a 63 and be like, well how did that happen? You know, I had two hours ahead of time to study if I wanted to and I chose not to. That's something that I have to work on being able to do for next semester.

Dylan also described making a conscious choice not to do what he needed to do:

> There were times where I'd set aside time to work on something. I'd get into the project and not get nearly as much done as I'd hoped and get sidetracked on something I enjoy like gaming. There were times I would be sitting there playing video games and I'd think, I really should be working on this project, but I didn't.
>
> I don't usually miss appointments, but the other day, I missed a deadline. I'm supposed to turn in pre-lab by midnight and I forgot to do it. That was within the span of the day. I definitely missed that mark.
>
> Overall, I would say I like deadlines because it sets the time frame. I start planning when I'm given the assignment and then I start, but it is not set in stone. The way that I usually do it is I just trust myself to get it done and that's kind of the risky part of it, because I know I need to get it done, but another part of me is just like hey, enjoy the time you have now, you can get it done any other day.

In the first example, Dylan claimed to have simply forgotten, even though the assignment was given during class and was due later the same day. This is consistent with the short-term memory processing issues seen with ADHD and implies a challenge that Dylan had little control over. However, it is clear he was aware of his memory problem but chose not to employ one of his strategies to remember. Instead, he decided to "trust himself to get it done." He knew this was risky. He had strategies in place, that if used, increased his chances of meeting the deadline, yet he resisted using them. His "planning" was precarious from the start as it was not "cast in stone," opening the door for the part of him that preferred to do something else.

What Kara, Diamond, and Dylan described may look like problems with time, organization, procrastination, or lack of focus, and there are elements of all of these. However, in the larger context of my discussions with them, these actions were conscious, in the moment, and intentional. There was no misalignment of their experience of time, clock time, and the schedule. All were fully aware of what they were doing and what they "should" be doing. They just could not bring themselves to do it.

Kara's body language and tone changed when she talked about ignoring the strategies or avoiding the work. She appeared more relaxed. She laughed. This was also true when she talked about recording her television shows. I also observed this with other students. The stress of meeting the schedule requirements and completing the work showed in their voices and body language. When I asked the students to talk about something that was easy for them, most could not think of anything, and some simply said, "nothing." On the ADHD Collective forum, Adam Muller (2019) asked people to provide a metaphor for what it feels like to have ADHD. The participants described their ADHD brains this way:

- It's like my brain is a computer with really low RAM.
- My brain is a browser with too many tabs open.
- It's like having a hundred TV's on at the same time, on different channels, on low volume.
- It's like a constant buzzing inside my head.
- It feels like I am trying to watch hundreds of TVs on different channels while trying to listen to every song imaginable and trying to sing along with all of them.
- It like a filing cabinet filled by 1000 different people.

The forum participants described this as emotionally wrenching and never ending. It is consistent with the students I interviewed and illustrates why it was often hard for the students to find the will to act. In the example Kara described above, the television provided a more comfortable emotional experience, one that let the buzzing in her head stop for a while.

Resistance

Resistance was a common theme in the student interviews. Resistance to authority or outside pressure is a trait associated with ADHD. While related, I see resistance as different from volition. Volition involves finding the will to move toward an activity while resistance is pushing against something. The students may have wanted to do the work, and believed they could do the work, but had visceral reactions whenever they felt pressured into it. This push back seemed to originate in their relationships with parents and K-12 teachers. The students interpreted their reminders as nagging or criticism, and a relentless reminder of their shortcomings. Unfortunately, remnants of this resistance followed many of them into higher education, although it did not necessarily look the same now that they were adults.

Sometimes the students resisted their own inner voices which were prompting them to act. More often, they were responding to external pressure, usually in the form of other people. Marissa explained that she enjoyed reading if it was self-initiated. She resisted the same activity if she perceived it as being forced upon her. She said:

> I read a lot of books because I like to learn a lot of things. I can go home and read a psychology textbook just because I find it interesting, but if I'm sitting in class and I am assigned it, I will fight tooth and nail not to do it. I don't know if it's because someone told me to do it or why that is.

Marissa pushed back against authority. If she wanted to do the work, she did it. If she was assigned work, she resisted. It did not matter if the task was something she liked or disliked. She also pushed back when being reminded to do something:

> I just don’t think I like being told what to do. I have an interesting relationship with my mother. I would have some things on my list that are on my mind to do and my mom would always say to do it before I got there, and it was very annoying to me. I already had it on my list. I don’t need you to remind me.

When asked why that bothered her, she replied, “I want to be an adult” followed by, “I also might need it.” Others reported similar frustration. They hated being reminded of things by other people, but also knew they needed these reminders. Elie, for example, described pushing back against her parents:

> I don't know where that stubbornness came from, but they would push my buttons just to the point where I was going to lose it. I might do it if they hadn’t said anything to me, but if they brought it up, I’d be like oh my gosh.

Elie also acknowledged, “I am stubborn in the sense that like, if you tell me to go clean my room now, I am mad at you. I won’t do it, it’s like, what? I have always wondered why I am like that.” Elie was aware of her resistance, but, like Marissa, did not understand why she did it. There was something about constantly being reminded that frustrated them. At times, it made them angry.

Ally demonstrated resistance to repeatedly being told what to do, especially by her mother:

> My mom will nag at me if I don’t get good grades and it stresses me out. Like, I have so much on my plate, and that’s when anxiety comes in, because she mentions it, then it will get me all stressed out.
>
> My mom would say you have to do this, you have to study for that. And I go to sleep, and I wake up in the morning and she would tell me all about it again. I feel bad about it, but sometimes I snap at her and she's like, I'm just trying to help, and I'm like, I know, but just stop. It sounds so bad. It's just like school for me. The last-minute nagging is annoying, but it's needed, and she knows that, and she knows it annoys me and it pisses me off, but she does it time and time again, because it seems to work.

Ally expressed frustration at what she perceived as relentless nagging, which was her “biggest pet peeve.” At some point, she could not take it anymore. Ally admitted that her mother was just trying to help, but she experienced it as a reminder of things she was helpless to control herself. Although it created frustration and anger, Ally acknowledged the necessity of the nagging because she was not likely to remember on her own.

Diego differentiated between resistance to school and everyday life activities, saying, “I guess it depends on the thing. School-wise, I am pretty motivated but life-wise, it depends on the thing.” He described the tendency to resist outside pressure, in this case from his mother:

> To me, if I don’t think something is important, then it just doesn’t get done. And my mom knows that. Like, there are people I enjoy being around and I don’t need to be reminded, but it’s stuff like, “You gotta go talk to uncle Gary.” I don’t want to do that. Like, no.

In our discussion, Diego said that he didn’t really think about these responses, describing his push back against authority as “instinctual.” Still, his actions sometimes appear to be deliberate, as shown in the example below, where he goes out of his way to make a poor effort:

> Yeah, I think it’s like, instinctively I do, but over the years, I’ve learned to not do that. She’d ask me to do something, and I’d be like, ok I’ll do it, but then I’d just do it the worst way possible. She’d say something like “clean the pans,” and I went outside and just shot the pans with a hose and didn’t even really look at them.

Diego talked about gaining some degree of control over the resistance as he got older, saying, “But that was when I was like 13. Now that I am older, I can just do it. Like if I get on that train of thought, it’s good, I’m good. Getting on that train is the hardest part.” In other words, Diego still experienced the resistance, but if he could “get on the train,” he was better able to get past it and put forth a reasonable effort to complete the task.

These external pressures and reminders were often effective, if the students could push past the resistance. Still, most described the experience as emotionally unbearable, so they pushed back against it. This adds additional stress to the emotional work of overcoming or suppressing feelings of anger, frustration, and resistance. Will described it best when I asked him how it felt to be pressured into something he was not ready to do:

> Have you seen the Avengers? Do you know what Bruce Banner's answer to Captain America is about his anger? He says, “I'm always angry.” Sometimes that Hulk wants to come out, especially when people are trying to tell me to do things that I don't want to do right now. I gotta cage that guy up.

Added to the pressure of performing the action, there was the added burden of having to internalize the feelings associated with it.

CONCLUSION

In Chapter 6, I examined the work students performed to achieve the time-space-activity coordination necessary to meet the demands of their college coursework. As seen in previous chapters, the students were aware of their challenges and employed various tools, strategies, and accommodations to compensate. Despite their persistent effort and motivation, sometimes they still did not complete the work.

All the participants had long term goals that served as strong motivators, helping them persist despite past difficulties in different learning environments over many years. More challenging for them was to find the motivation required to meet day-to-day expectations. There was a complicated relationship among motivation, stress, procrastination, and deadlines. The students described varying levels of anxiety regarding impending deadlines, but still found them essential to completing the work. If a deadline was too far in the future, the stress and accompanying anxiety were not enough to create the sense of urgency needed to get started. If they procrastinated, and all the students did to some extent, the impending deadline prompted them to action. Sometimes this strategy worked and sometimes it did not, but the quality often suffered because of a lack of preparation, foresight, and time.

Independent of their tendency to procrastinate, students had trouble starting the work when the time came to do it. Getting started required "time-space-activity coordination," when the students had to: (1) realize it was time to work; (2) have the necessary materials at hand; and (3) control distractions. This required sustained attention, memory, focus, and motivation. All the elements had to synchronize and repeat over multiple time intervals. Unlike the willful act of

procrastinating, failure to achieve this state was not intentional. They could not mobilize, coordinate, and sustain the needed internal and external resources over time. This created frustration, anxiety, and more procrastination. Because of the considerable effort involved in beginning an activity or assignment, all but two students preferred to finish the work in one sitting, avoiding the need for multiple starting points. The effort of achieving the time-space-activity coordination was often more work than the activity itself.

Staying on track and finishing an assignment presented additional challenges. Most of the students reported having trouble finishing what they started, leading to another set of strategies to help them stay the course. This often involved self or external stimulation. These included moving around, talking to themselves, fidgeting, listening to music, or having the TV on. While not always effective, this helped them focus. Where these and other strategies did not work, the students faced a crossroad. They either pushed through and finish the work, or they gave up.

These patterns repeated throughout the semester and the students' frustration and disappointment built. They were acutely aware of the struggle and largely bore it alone. No one wanted to be that way. All had tried to break the cycle by using organizational and time management tools. At the beginning of the semester, most students had a plan of action. They had strategies to help them follow through with the plan and usually started off strong. Inevitably, at some point during the semester, the strategies failed to a greater or lesser extent. Sometimes, the students were trying to use strategies and tools that required abilities they could not consistently draw upon or maintain. Or, as more assignments and deadlines piled up, and the complexity of the schedule increased, the effort seemed too great and motivation waned.

Performing work requires the will to move from intention to action. This is what McCoy calls, "managing the problem of will" (2009:139). Even when the inner experience of time, clock

time, and the schedule aligned perfectly, the resources were available, and the students were able to draw upon attention, focus, memory, and motivation, the work was not always completed. Every student talked about finding the will to do the work, commonly expressing it as an internal debate. They knew the work had to be done, but resisted nonetheless.

In the college environment, the most common forms of resistance were related to the subject matter, forms of assessments, and styles of teaching. The students in this study had difficulty willing themselves to engage with material they had no desire to learn. The specifics differed from person to person, but if an activity or assignment was something they were interested in, they could usually do it, sometimes by hyperfocusing. If it was something they were not interested in, or felt pressured to do, they resisted. Sometimes they consciously chose, or even planned an alternative activity to get out of doing the work.

I propose that there is more behind the students' failure to act than a lack of motivation, procrastination, resistance, misalignment, or executive function deficits, although all these may have influenced the students' behaviors. McCoy (2000:140) describes "a dangerous moment of dread and resistance" when the time came for action. Those words precisely capture the emotional state reported by the students in my study. They sometimes chose not to do the work because they could not overcome the dread they felt *at that moment*. Instead, they chose an activity that was less uncomfortable, sometimes even planning for these occasions. It was not because they forgot, were distracted, or wanted to do something else. Instead, this behavior provided a viable alternative that served as purposeful relief from the anxiety, frustration, and emotional distress associated with an activity that was not compatible with how their brains worked.

People who do not have ADHD might assume that those who do would prefer to be attentive, focused, timely, and organized. While that would help them adhere to societal norms, those characteristics are the opposite of normal or comfortable for someone with ADHD. It was not that the students did not want to do the work, although sometimes that was true. More often, they could not bring themselves to do it when the “dangerous moment of dread and resistance” arrived.

CHAPTER 7

Conclusion

Although research on college students with ADHD has increased in recent years, there are significant gaps, most notably in the sociological literature. Exhaustive searches on ADHD over the course of my research produced few results in sociology journals. Originating primarily from the fields of medicine, education and psychology, ADHD research has been largely quantitative, and focused on the prevalence, demographics, assessment, diagnosis, outcomes, and treatment of the disorder (DuPaul et al. 2009; Fleming and McMahon 2012). A significant number of learners diagnosed with ADHD go to college (DuPaul et al. 2009; Green and Rabiner 2012), albeit with higher failure rates, lower grade point averages, and higher dropout rates. They have difficulty with decision making, study skills, and time management (Heiligenstein, Guenther, and Levy 1999; Lefler 2016; Norwalk, Nivilitis, and MacLean 2009; Steinberg 1998).

Existing research on ADHD suggests that problems with time management are secondary to cognitive deficits in executive functioning (Brown 2013; Barkley 2012; Willcutt et al. 2005; Biederman et al., 2009). In medicine, time studies largely focus on alterations in brain neurophysiology and the resulting pathology associated with executive function deficits (Barkley 2001; Howard 2011; Prevatt et al. 2001). Psychological research focuses on time perception, time discrimination, time estimation, time production, and time reproduction (Zakay 1990; Barkley et al. 2001; Toplak & Tannock, 2005; Carelli and Wiberg 2012). Educational research emphasizes diagnosis, learning, and school-based strategies, primarily in children (DuPaul, Weyandt, Janusis; Meerman et al., 2017). In this sociological dissertation, I examined time from the viewpoint of college students with ADHD as they navigated the academic and institutional

policies and course requirements at a specific community college, giving them a voice that is largely unheard in existing sociological literature.

I undertook this research because of long-standing personal and research interests in ADHD, qualitative methods, and institutional ethnography. I was not sure how those might converge in the form of a dissertation until I read Liza McCoy's article, "Time, Self, and the Medication Day: A Closer Look at the Everyday Work of Adherence" (2009), where she described her research with people engaged in Highly Active Antiretroviral Therapy (HAART) treatment for HIV infection. The HAART regimen required adherence to a schedule that involved multiple pills taken throughout the day, often producing physical and emotional distress and interfering with other activities. McCoy's study proved valuable as I envisioned and carried out this dissertation research. Her three-way alignment model served as a framework for me to explore the everyday experiences of college students with ADHD as they engaged in a distinctive form of high stakes work related to time and adherence. In Chapter 7, I present a summary of key findings, identify the limitations of my research, highlight its contribution to existing research, and make recommendations for future study.

SUMMARY OF FINDINGS

The primary informants for this study were the student participants. Using information gathered through interviews and texts, I explored the everyday work of college students with ADHD as they tried to adhere to the schedule and time expectations of college coursework. I also explored institutional policies and processes of the community college they attended to determine if, and how, these impacted the students' work of adherence. I summarize the findings below.

In Chapter 4, I described the students' inner experience of time, awareness of clock time, and adherence to the schedule of activities required of their coursework. Every student reported some degree of difficulty with all components of the three-way alignment. Although the students described their experience of time as different from those without ADHD, they had trouble articulating how. This is consistent with existing research on ADHD (Barkley, et al. 1997; Barkley 2014; Brown, 1985; Prevatt 2011), where alterations in time perception often lead to inefficient behavioral responses and problems with adherence to the schedule. Most often, the students experienced time as "feeling fast," and they preferred it that way. A study by Walg et al. (2017) confirmed the presence of a faster internal clock in people with ADHD, with more rapid time processing speeds correlating to slower cognitive processing. While the student's in this study most often experienced time as fast, and sometimes deliberately did things to keep it that way, it interfered with their awareness of clock time and ability to process information, leading to missed deadlines or poor work quality.

The students engaged in a significant amount of work to keep track of time, checking the clock frequently throughout the day. They expressed feelings of anxiety when not knowing the time. Although the students said they paid close attention to time, sometimes obsessively, it did not always help them *stay* aware of it. All experienced "time blindness" to some degree. While the students had little insight into how they experienced time, or why they had trouble staying aware of clock time, they could easily articulate the schedule and expectations associated with it. The problem was not with how they conceptualized the schedule, but in its execution, which required them to shift attention, re-establish priorities, and change course. This mental flexibility was difficult for them. To that effect, the more the students planned ahead, the less successful they often were due to inevitable changes in their schedules. Maintaining the three-way

alignment required the students to stay aware of time and accurately perceive the duration of past and future events. I observed a disconnect between their inner experience of time and awareness of clock time, causing them distress and leading to problems adhering to the schedule.

I also presented data on what the bio-psych literature calls "executive functioning" and how this contributed to a failure of the three-way alignment. When examining the student data, three words (or their variations) consistently emerged from the interviews. These were attention, focus, and memory. I was not surprised at this finding since executive function issues are thought to underlie many of the symptoms of ADHD (Barkley 2012). Concluding that the three-way alignment, as described by McCoy (2009), did not fully explain the students' difficulties, I further examined the impact of attention, focus, and memory.

I linked attention, focus, and memory to specific components of the three-way alignment because they consistently appeared together in the interviews. However, there was considerable fluidity within and among those connections, with overlay among attention, focus, and memory as they related to each other, and as they related to the experience of time, awareness of clock time, and the schedule. Just as there was a nonlinear relationship among the components of the three-way time alignment, the executive functions also had to converge for the work to get done. These things interacted and influenced each other. Attention, focus, and memory were central to maintaining the alignment. While other factors influenced adherence to the schedule, they were not as closely related to time and were explored in subsequent chapters.

The relationships that existed among these six variables were not mutually exclusive. None appeared to be more significant than another. Misalignment did not automatically impede the student's ability to adhere to the schedule, nor did alignment guarantee it. Despite these

challenges, the students usually completed their assignments on time. This required additional work beyond that required of the assignments themselves.

In Chapter 5, I examined strategies used by the students as they planned and completed course work within a prescribed schedule, and their experience of time as they did so. I also discussed the work practices of the Office of Disability Services and the assistance it provided to the students. Dorothy Smith (2005:151) defines work as “what people do that requires some effort, that they mean to do, and that involves some acquired competence.” In this chapter, I explored both individual and organizational work and looked at how these intersected.

I imagined there would be a strong connection between the Office of Disability Services and the students but found little involvement between the two aside from the standard accommodations provided by the office within the physical boundaries of the college. Referring to the specific requirements of the Americans with Disabilities Act (ADA), the coordinator explained, “this is what we must provide for the students,” emphasizing that their work was confined to what occurred “under our roof.” Those statements did not seem significant at the time of the coordinator interview, but after talking with the students, I realized how limited the relationship was. Colleges must only provide "reasonable accommodations” for students with disabilities (Smith and Wilson, 2003). Colleges seek to comply with the law, while controlling costs and minimizing disruption (Jung 2003). This was apparent in the Office of Disability Services at this college. Per the coordinators, they did not have enough staff or space to follow through with the students after enrollment to the extent that they would have liked. Although the institution’s goal was to retain students, and had been for several years, the office did not collect retention data and only speculated as to why students did not use their accommodations or return to the Office of Disability Studies after the first visit. The entire responsibility for follow up fell

to the students, who were required to contact the office if they needed anything. One of the coordinators said, “If you need something, you have to come to us. We put the responsibility on the student.” The students were also responsible for assuring that their instructors received the accommodation letter and made the necessary changes. The office staff assumed that if the students did not ask for something, they did not need it. This was a precarious assumption given that a lack of initiative and follow-through are characteristic of ADHD. In addition, students are not always good judges of what they need and may not have a good understanding of how the accommodations are supposed to help them (Jansen et al. 2018).

The students in this study described different experiences and feelings about using accommodations. Some rarely used them, and others used them consistently. Half never used them at all. Reasons for not using accommodations had little to do with the Office of Disability Services or their procedures. Almost no one expressed concern over the policies, procedures, or the extensive paperwork involved. Those who did not use the accommodations either did not believe they were necessary or did not think they would help.

Even for those who used them, the accommodations did not always address the complex and overlapping challenges they faced. Aside from extra time on tests, the accommodations did not help the students outside of the college environment, where most of the work took place. For example, a quiet room to test reduced distractions at the college but may not have been available at home. The students were aware that these accommodations would not be available to them in the “real world,” so some chose not to use them while at college. The accommodations caused a few of the study participants to feel embarrassed or stigmatized. One student feared that she would not be able to secure a job if employers knew she had ADHD, underscoring the need to inform students of the Family Education Rights and Privacy Act.

The Office of Disability Services was limited in how they could assist the students. For example, the staff could not help the students remember to use their calendars and planners, find their lists, take their medication, and ignore distractions. The purpose of the office was to comply with the Americans with Disabilities Act. In doing so, the staff sought to "level the playing field" for students with disabilities while not giving them an "unfair advantage." The Office of Disability Services offered tools within its authority to serve the students in this study. Nevertheless, the scope of the accommodations was situated firmly in the hierarchical structure of the department, the college, the ruling bodies the college reported to, and the federal government through its ADA requirements. In this scenario, accommodation implies that individuals must change to meet the requirements of the institution, not the other way around. The structures and laws set forth to support students with ADHD place most of the responsibility on the students, creating additional work and further taxing their ability to maintain the three-way alignment. A macro option would be to overhaul the United States system of higher education, adapting it to fit a wider spectrum of individuals and their unique idiosyncrasies, but that is not likely to happen on any large scale or in the near future. While students with ADHD are afforded standard accommodations of questionable validity or usefulness (Miller, Lewandowski, and Antshel 2014), the larger system does not change to accommodate them.

Where does that leave the students in this study who shared stories of their experiences, challenges, and frustrations with the very things that were supposed to help them? If they wanted to succeed, they had to work with the accommodations, strategies, and tools available to them, or come up with their own. Some students found unique ways to maintain the three-way alignment and complete the work, however, most were not "their" strategies. Common time management and organizational strategies are developed by and designed for, people without ADHD. Even

those marketed to people with ADHD are directed toward helping them adhere to "normal" societal expectations. None proved consistently useful to the students over time, and some had negative consequences associated with them. For example, all the students had tried medication, but few were still taking them during the study period. The drugs worked "like magic," but the side-effects were too much for most to live with. Successful use of calendars and planners required that the students had already achieved and could maintain the three-way alignment, when most had not. Electronic devices addressed the issue of availability and accessibility but were distracting. Notes and lists were useful if they could be found and interpreted. Relying on other people, much like calendars and day planners, required the ability to attend to, focus on, and remember information they could relay to their "helper." If the students could do that consistently, they would not need someone to remind them. The students knew they needed help from others, but the reminders were perceived as nagging, causing them extreme frustration and emotional distress, as encapsulated by Ally's statement, "Oh my God mom! Leave me alone! I'll do it!"

Time management and organizational strategies are designed to decrease work and increase productivity. But, to a person, the students expressed how much effort it took to use the tools. Things that were supposed to make adhering to the schedule easier often made it more difficult. For the students in this study, the binary of 'easier' or 'harder' was largely indistinguishable. Even if the coursework itself was easy, the students believed they needed the strategies in order to adhere. By attempting to use the strategies, they knowingly added another layer of difficult work to their lives in the present time to achieve future goals. Every student used strategies and tools, despite knowing that 'ease of use' did not exist for them. They accepted this form of work as a necessity, albeit an onerous one.

In chapter 6, I explored additional challenges to starting, stopping, and completing the work despite the students' best efforts to adhere to the schedule. The students reported complicated relationships with motivation, procrastination, stress, and deadlines. Every student talked about these things in one form or another. The students were all highly motivated to attend college, and some were nearing graduation. They persisted in their education despite past setbacks. Yet, they had difficulty evoking the immediate motivation needed to begin and complete a specific assignment. This is one reason the organizational and time management strategies failed them. If used correctly and consistently, the tools reminded them of the schedule and the work to be done. However, the strategies could not make them want to do the work.

The students frequently lacked the motivation to start a project even when they were fully aware of the deadline and had the time to complete the work, often putting it off until the last minute. Whereas experts and educators view procrastination as a detriment, the students saw it as a necessary evil. They all voiced a preference for hard deadlines, but not for obvious reasons. In theory, a deadline provides time to construct a plan of action and parcel out the work in manageable intervals. However, as the previous chapters demonstrated, this rarely took place. Instead, as the students procrastinated, and the deadline neared, they experienced stress and anxiety, which became primary motivators to get the work done. Procrastination became a strategy, sometimes an effective and time saving one.

The students provided numerous examples of when the stress of an impending deadline motivated them to start and complete their work on time. Across the board, the students did not like the associated anxiety, yet attributed their success to it. Sometimes the anxiety became unbearable, or they misjudged the time required to complete an assignment and missed the deadline. Still, they continued to procrastinate, wishing there was another way, but believing

there was not. I suggest that the stress of a looming deadline had an effect similar to that produced by stimulant medications, activating attention, focus, and memory, allowing the three-way alignment to occur. It is important to note that the students did not view procrastination as a positive strategy. They experienced significant emotional discomfort from it, and with few exceptions, could not explain why they continued to do it. While not advocating for the use of procrastination as a time management strategy, or suggesting it is the key to achieving the three-way alignment, it is worth noting how oddly effective it was for many of the students. A more thorough investigation into the relationship among procrastination, stress, and the deadline might lead to strategies better suited to the needs of someone with ADHD.

Finally, even if everything fell into place and the three-way alignment occurred, there was no guarantee the students would complete the work. In order to start an assignment, the students had to overcome the internal obstacles described earlier, assure that all the required materials were available, and control internal and external distractions. I refer to this as time-space-activity coordination. Time-space-activity coordination requires a complicated set of circumstances repeated until an activity/assignment is completed. For the sake of discussion, consider the following fictional scenario. Two students with ADHD attend college. Student A has successfully implemented strategies to maintain the three-way alignment. Additionally, she has achieved time-space-activity coordination, creating optimal circumstances for completing an assignment before the deadline. Student B finds himself struggling with ‘all the above’ and now has twenty-four hours to complete the same assignment. He had trouble getting started because the deadline was too far into the future. He procrastinated, and now that the stress of an impending deadline has kicked in, he knows it is now or never. Student A, with seemingly

everything in her favor, fails to complete the assignment. Student B, with everything stacked against him, turns in the assignment with minutes to spare. How could this happen?

This scenario played out in multiple ways throughout this study. Regardless of how perfect or imperfect the circumstances, it ultimately came down to what McCoy (2009:139) describes as "...a mental and emotional movement of volition that extends into physical action" or a "snap to moment." Students often described the decision to start, pick up where they left off, or finish an assignment as an internal battle between what they wanted to do and what they knew they had to do in order meet the deadline. Adherence to the schedule required the volition to act. The students sometimes chose not to complete the work, even when the circumstances were ideal. In this situation, they did not attribute their inaction to a lack of motivation or to procrastination. Furthermore, they did not associate it with attention, focus, or memory problems. No one linked it to their inner experience of time, awareness of clock time, or the deadline. To the contrary, they simply did not want to do the work *at that time*, even if it was the *perfect time*. The study participants preferred, whenever possible, to start and finish an assignment in one sitting, eliminating the need for multiple "getting started" points, each of which required yet another act of volition and the corresponding internal struggle.

The students also tended to resist authority or outside pressure. Whereas volition involved the will to *move toward* an activity, resistance *pushed against* it. The students may have wanted to do the work, knew they could do the work, but had strong emotional reactions whenever they felt pressured into it. Sometimes this pressure was from an authority figure such as a teacher, or a "helper" in the form of a friend or family member. Although the stress of a deadline often served as a motivator, it could also trigger resistance.

In the ADHD literature, volition and resistance are associated with executive function deficits, cognitive inflexibility, and problems with self-regulation (Brown 2008; Chatham et al. 2012; Diamond 2012; Hoffman et al. 2012; Lezac 1999; and Nigg 2004). While these perspectives offer insight into the problems of volition and resistance, they are firmly situated in the biomedical model of ADHD. I propose an alternative, or complementary, explanation.

People with ADHD have problems with emotional dysregulation (Surman et al. 2013), accompanied by difficulty suppressing strong positive or negative emotions, self-soothing, and refocusing attention toward goal-oriented action (Brown 2014). The students sometimes chose not to do the work because they could not overcome the dread they felt at the moment of action, knowing the discomfort it would cause them. Instead, they avoided the emotional and mental strain by choosing an activity they found more comfortable. From this perspective, behaviors associated with resistance and a lack of volition are not self-regulation *problems*; they are self-regulation *strategies*, developed in response to the anticipated mental and emotional strain of placing themselves in an unnatural state. Viewed this way, there is purpose to actions that are often interpreted by others as dysfunctional. While these actions may appear deviant, they are instead self-protective.

Why did the students perceive an activity as distressing, especially when it seems simple to most people? Like procrastination, popular discourse views inattention, lack of focus, disorganization, and time blindness as undesirable states, but could it be that they are normal for someone with ADHD? While these attributes may cause problems adhering to western societal expectations, they do not cause subjective discomfort for the person with ADHD. They are natural, familiar, and comfortable states of being. People who do not have ADHD likely assume that those who do would prefer to be “normal,” much like many in the hearing world assume

someone who is deaf would prefer to hear. That is not necessarily the case. I contend that the students in this study would be content with their differences if they "fit" with the dominant culture informed by the social institutions they attempt to traverse. The students in this study, however, were forced out of their comfort zones, having to call up abilities they did not have or could not consistently sustain without exhausting and emotionally draining effort. It is like asking an introvert to be extroverted, an artist to become a mathematician, or an engineer to become a poet. They could try, probably with mixed success, but it would likely be an unpleasant experience. Sometimes the students in this study simply did not want to do the work, not unlike any other student. Other times, though, when the "dangerous moment of dread and resistance" arrived, they could not bring themselves to do it at that moment.

DELIMITATIONS

I made several choices regarding the criteria for participation in this study that can be considered delimiters. First, the students had to have registered with the Office of Disability Services. This required verification of an ADHD diagnosis from a health care professional and excluded anyone who was self-diagnosed, could not afford to obtain the required documentation, or who chose not to register with the Office of Disability Services. Second, the students must have completed at least one semester of coursework prior to being interviewed, eliminating first semester college students. Third, the students could not have a coexisting mental health condition that might have influenced their ability to participate in the study, provide informed consent, or cause them undue stress. The presence or absence of a coexisting condition was determined by self-report. These decisions were made intentionally, understanding that they limited the scope of the study.

There are three subtypes of ADHD as described in the *Diagnostic and Statistical Manual of Mental Disorders-5* (American Psychiatric Association 2013a); inattentive, hyperactive, and combined. I decided not to consider ADHD subtypes in this study. Doing so would have required that I review the student's health records. Although not impossible, it would have required special permissions related to the Health Insurance Portability and Accountability Act of 1996, something both I and the college were reluctant to pursue. I also did not want to be influenced by anything else I might have seen in the student records. It was also unlikely that I could get equal representation of all the subtypes due to the small sample size, but not accounting for subtypes may have influenced the findings.

LIMITATIONS

There are several limitations with this study. One is that the setting is a two-year community college. I cannot assume that the study participants are representative of people with ADHD who attend other types of institutions, or who do not attend college at all. Although accommodations for ADHD are fairly standard, the scope of services provided through disability service offices vary considerably. The policies and procedures of The Office of Disability Services at this institution may not mirror those found at other institutions of higher learning.

The participants self-identified and cannot be compared to those who chose not to self-identify or register with the Office of Disability Services. The participants were volunteers who may be different from those who chose not to respond. The respondents were diverse in age, race, ethnicity, gender, and social class. However, the small sample size prohibits any generalizations based on demographic characteristics. It is important to note that, although ADHD is diagnosed more frequently in males than females by a margin of approximately 2.5:1 (Center for Disease Control and Prevention 2019), there were only four males in the study group.

Finally, I chose to conduct a qualitative research project, knowing it would restrict my ability to generalize these findings. Nevertheless, the limitations and delimitations stated above can serve as points of departure for future research, including my own.

RECOMMENDATIONS

To build on my findings, it would be valuable to repeat the study with a larger and more diverse sample and in other types of higher education institutions. The federal government requires that colleges and universities receiving federal funds comply with the Americans with Disabilities Act. Still, there is considerable variance among the services provided that could impact student experiences. It would be interesting to study students diagnosed with ADHD who chose not to register with the Office of Disability Services as well as those who self-diagnose. These two groups may be overlooked since they are not easily identifiable.

While I approached this research from the standpoint of students diagnosed with ADHD, I saw that there were implications for the Disability Services Office as well. The disability services staff at this institution was charged with a plethora of tasks. The staff had to verify diagnoses, intake students, and assign/provide accommodations. This work took place under the umbrella of the Americans with Disabilities Act (ADA), which guides these processes through the requirement of "reasonable accommodations" without "undue financial hardship." By their own admission, the coordinators sought to level the playing field through reasonable accommodations. But how level is level enough? "Reasonable" is a subjective word largely left to the Disability Services Coordinators to interpret. It would be interesting to explore how the work of conceptualizing a *fair playing field* intersects with the work of avoiding *undue financial hardship.* In this study, we know who determined what *fair* is, but who decided/considered what *undue hardship* was? Can these two constructs even be separated?

The community college used in this study was funded by the state legislature, student tuition, and ancillary fees. The central office of the statewide system allocates resources to the colleges. The individual colleges divide resources among the various departments. Eventually, the Office of Disability Services Coordinators decided how to use the funds within their department. As it is currently constructed, the Office of Disability Services receives funding to provide accommodations to their students with ADHD, but they are stretched thin. Although not mandated by ADA, some colleges have the funding and resources to provide evaluation, counseling, tutoring, and personal aids through disability services. This college, and the other colleges in the community college system do not have these resources and therefore limit services to providing standard accommodations. In short, the question of who decides the parameters of undue financial hardship takes place concurrently, both extra locally and locally, and this decision is necessarily wedded to matters of fairness.

If additional funding and resources were available to the Office of Disability Services, would providing additional services *unlevel* the playing field in favor of students who enrolled to receive them, or would it merely shift the definitions of fair and level? At this institution, that distinction is left entirely up to the coordinator when perhaps a more comprehensive effort among the coordinator, the college, the system, the state, and disability studies researchers to collaboratively interpret the vague language set forth in the ADA would be useful. Sociological research using institutional ethnography could serve to examine how legislation prescribed by extralocal bodies are interpreted and implemented at the local level, and how this impacts the individuals it was designed to help.

There are ways to quantify college students "with ADHD" that I did not include in my research. While I noticed no obvious differences between the students who were diagnosed as children versus those who were diagnosed as adults, or with respect to the age, race, sex, and social class, I did not control for these variables. It would be worthwhile to examine these variables with a larger sample and a different methodology.

It would also be interesting to explore potential differences in the three-way alignment based on ADHD subtype. Through questions more specifically targeted toward the subtypes, further research might provide a deeper insight into student experiences with the three-way alignment, strategies, tools, and accommodations, or the work of adherence.

Finally, to better assure that the findings of this study are unique to students with ADHD, it would be useful to duplicate it with a control group of students who do not have ADHD. I did not intend to compare these two groups in my research, but I am curious to know if the experiences of the students in my study are common to all students. I would expect students without ADHD to report some of the same experiences, but to different degrees. I would be most interested in what emerged as significant when comparing the two groups.

CONTRIBUTIONS

Most research on Attention Deficit Hyperactivity Disorder comes from the fields of medicine, education, and psychology. Sociology's contributions are strikingly small when compared to those listed above. Most sociological research focuses on the historical construction of diagnostic categories, demographics, and how the diagnosis has evolved over time. These are important research topics, but they do not widely address the everyday experiences of people with ADHD. From a sociological perspective, little research has examined the day-to-day experiences of individuals diagnosed with ADHD, and even less with adults or college students.

That is the standpoint from which I began this study. Therefore, I view my research as a point of origin rather than the completion of a journey. I believe it begins to fill a gap in the literature. To that point, I hope this research serves as a catalyst to encourage more sociologists to conduct research on ADHD, as the social consequences are considerable. Having relied so much on research from other fields of study, I understand how important it is to have an interdisciplinary approach to the study of ADHD. Sociology needs a greater voice in the conversation.

After using McCoy's three-way alignment model, I remain convinced of its value as a conceptual framework. I hope that researchers with different or similar aims and with different groups of participants find ways to use, deconstruct, or evolve the model into something that fits their research interests. For example, the three-way alignment model could be applied to the study of the work or social lives of those with ADHD. Thus, I see my sociological research as a as a single brick in an underdeveloped section of the rapidly growing wall of ADHD literature. I hope my research encourages other sociologists to contribute a brick of their own.

Researchers focus on why students with ADHD struggle, or look for ways to treat them. I chose to explore *what* that struggle looks like, bringing me to what I hope is the most significant contribution of this study; a re-thinking of time management and organizational strategies for students with ADHD.

When I began this study, I thought perhaps the students would have personalized strategies that worked for them. Except for Abby, who used her left arm as a daily planner, the students attempted to use common time management and organizational strategies. Some worked better than others, but all of them brought an extra layer of work that that was often more of a burden than they were worth. From a sociological standpoint, the students were attempting

to fit into an educational institution designed to meet the needs of the numerical norm, using strategies intended for those who fit the norm.

This begs two questions: Is it possible to formulate strategies based on the *reported experiences of students with ADHD* that would more effectively help them navigate the institutional parameters of college or other settings? If so, who gets to be part of this creative process? Traditionally, it has been left up to the professional "experts" who have driven the historic and contemporary narratives of people with ADHD. I contend that, as researchers, we have not always done the best job of gleaning information from the *real* experts and this is part of the problem. I believe that we can begin an interdisciplinary effort that includes people with ADHD in order to develop strategies better suited to their needs, rather than offering options they are ill equipped to implement effectively or consistently. I would be satisfied to know that my research made even a small contribution toward this effort.

APPENDIXES

Appendix A: Interview Guides

Initial Student Interviews

The first few questions are ice breakers and will provide some background on where they are in their educational career.

1. How long have you been a student at Chattahoochee Technical College?
    a. What are you studying?
    b. Are you a full time or part-time student?
2. Tell me about your career goals.
3. What aspects of college to you find most challenging?
4. What aspects of college to you find easiest? Most rewarding?
5. Do you work in addition to going to school?
    a. If so, tell me about your job and how that affects may compete with the demands of school.
6. What are some of the other things in your life that may compete with the demands of school?
7. Talk about any goals you have set for yourself this semester?
    a. What, if any, specific strategies do you have for attaining these goals?
8. Tell me about your experiences with the Office of Disability Services (ODS).
    a. Are you now, or have you in the past, received accommodations for ADHD?
    b. If so, what are they and which have you actually used?
    c. How have these accommodations helped you?
9. When were you first diagnosed with ADHD?
    a. What prompted you to seek evaluation for ADHD?
    b. What treatments/strategies have you tried, and have they been helpful?
10. Talk about your overall experience of living with ADHD.
11. Talk to me about how you experience time.
    a. How aware of time are you throughout the day?
    b. Can you think of occasions when time seemed to "get away from you?"
    c. Are there occasions when time seems to speed up? Slow down?
12. How do you stay aware of clock time?
    a. Do you wear a watch?
    b. Do you check clocks, your phone? How often do you check the time of day?
13. Do you ever forget about time commitments (i.e. appointments, assignment due dates)?
14. Do you ever lose track of time?
15. How do you go about scheduling your daily, weekly, or monthly activities?
16. Talk about how you managed the time and scheduling demands of college last semester?
    a. What worked for you?
    b. What didn't?
17. What experience have you had with online learning?
18. Are there other things you can share about your college experiences as they relate to ADHD or your ability to manage the time and scheduling demands of college?

Possible Follow up Phone Interview Questions

1. How have things been since we last talked?

2. For online or hybrid classes, how often are you accessing Angel?
    a. Are you using the online resources?
    b. How often are you checking your student email?
3. What has *helped* you meet the time and schedule demands of your classes?
4. What has *kept you from* meeting the time and schedule demands of your classes?
5. Have you had to adapt or make changes to your plans for managing your courses this semester?
6. Have there been any key changes in the past few weeks that are affecting your ability to meet your course requirements?

Final Student Interview

The final interview will be less structured. Each student will have had a unique experience during the semester. This interview will, to some extent, be driven by those experiences. These are some general questions that apply to everyone.

1. Overall, how was your college experience this semester?
2. Did you utilize any accommodations from Disability Services?
    a. If so, how were they helpful or not helpful?
    b. Are there accommodations you did not receive that you believe would have helped you?
3. Describe your overall experience this semester with respect to managing the time and schedule demands of college?
4. Are there things you will do differently next semester?
5. Is there anything else you would like to share with me about your experiences this semester that I have not asked you about?

Office of Disability Services Interviews

1. Can you briefly describe your experiences as a disability services specialist?
2. How many ADHD and/or LD specialists are employed by disability services?
3. How many students with ADHD are registered with the ODS?
4. What are the procedures for registering with the ODS?
5. What kinds of accommodations does the school offer students with ADHD?
6. Is specialized tutoring available for students with ADHD?
7. How does the ODS notify instructors of the student's accommodations?
8. How do you see the role of the instructor in providing the accommodations?
9. What challenges present themselves with respect to providing accommodations (e.g. faculty response, student utilization)?
10. What other support services available through the ODS?
11. What have you observed with respect to students' ability to manage the time and scheduling expectations of college work?
12. How, if at all, does the ODS assist students with time management?

Appendix B: Consent Forms

MAXWELL SCHOOL OF CITIZENSHIP AND PUBLIC AFFAIRS
COLLEGE OF ARTS & SCIENCES/DEPARTMENT OF SOCIOLOGY

Erik Rodriguez, M.A.

Student Consent to Participate in a Research Study

Title of the Study: Time, Schedules, and the College Student with ADHD

My name is Erik Rodriguez and I am a graduate student at Syracuse University. I am inviting you to participate in a research study. Involvement in the study is voluntary, so you may choose to participate or not. This sheet will explain the study to you. Please feel free to ask questions about the research if you have any. I will be happy to explain anything in more detail.

Focus of the Study:

I am interested in learning more about how students with ADHD manage the time and scheduling demands of college, as well as the social and institutional processes that shape what they do.

Your participation would involve two face-to-face interviews, held at a convenient location on the Chattahoochee Technical College campus. The first will be near the beginning of the fall semester and will last approximately one hour. The second will be toward the end of the fall semester and will last approximately one hour. Participation will also involve brief follow-up phone calls approximately every two weeks throughout the semester.

Confidentiality:

All information will be kept confidential. Only I and my faculty advisor will have access to the data. To ensure confidentiality, your name will be changed or removed from all written data. All printed documents will be kept in a secure, locked file cabinet and destroyed once the study is finished. The data from this study may be published or presented at a conference; however, no identifiable information will be used.

Digital audio recordings will be made of the interviews. These will be kept on a password protected, secure computer. These recordings may be transcribed. I am the only person who will have access to the recordings. The audio files will be destroyed at the completion of the study. You have the right to revoke consent at any time. You can also request, at any time during this process, that the tapes and written materials be destroyed.

Compensation

Student participants will receive a $20 Amazon gift card at the completion of each of the two main interviews ($40 total).

Risk/Benefits

Although there are no known major risks with this study, the possible minimal risks could include discomfort or embarrassment while sharing personal stories and experiences, anxiety related to concerns about confidentiality, and feeling that participation in the study could add additional pressure or may interfere with your academic performance. If these or other concerns arise at any time, you should feel free to voice them. You also have the right to withdraw from the study at any time without any penalty.

The benefit of this research is that you will be helping us to understand how students with ADHD manage the time and scheduling demands of college. This study will contribute to the greater body of knowledge on ADHD that will hopefully improve the lives of people with this condition.

If you have any questions or concerns about this study, you can contact, Erik Rodriguez at edrodr01@maxwell.syr.edu and 315-200-2888 or Dr. Andrew London (faculty advisor) at anlondon@maxwell.syr.edu and 315-443-5067. If you have any questions about your rights as a research participant, you have questions, concerns, or complaints that you wish to address to someone other than the investigator or his advisor, contact the Syracuse University Institutional Review Board at 315-443-3013.

(You will receive a copy of these forms for your personal records)

I understand that I am participating in this study of my own free will and that I can stop participating in the study at any time.

I am 18 years of age or older, all of my questions have been answered, and I wish to participate in this research study.

_____ I agree to be audiotaped

_____ I do not agree to be audiotaped (if you do not agree to be audiotaped, the researcher will take handwritten or typed notes during the interview).

_____ _____
Signature of participant Date

_____
Printed name of participant

_____ _____
Signature of researcher Date

Erik Rodriguez
Printed name of researcher

MAXWELL SCHOOL OF CITIZENSHIP AND PUBLIC AFFAIRS
COLLEGE OF ARTS & SCIENCES/DEPARTMENT OF SOCIOLOGY

Erik Rodriguez, M.A.

Faculty/Staff Consent to Participate in a Research Study

Title of the Study: Time, Schedules, and the College Student with ADHD

My name is Erik Rodriguez and I am a graduate student at Syracuse University. I am inviting you to participate in a research study. Involvement in the study is voluntary, so you may choose to participate or not. This sheet will explain the study to you. Please feel free to ask questions about the research if you have any. I will be happy to explain anything in more detail.

Focus of the Study:

I am interested in learning more about how students with ADHD manage the time and scheduling demands of college, as well as the social and institutional processes that shape what they do.

Your participation would involve a brief interview of approximately 30-60 minutes, held at a location of your choosing on the Chattahoochee Technical College campus.

Confidentiality:

All information will be kept confidential. Only my faculty advisor and I will have access to the data. To ensure confidentiality, your name will be changed or removed from all written data. All printed documents will be kept in a locked office and destroyed once the study is finished. The data from this study may be published or presented at a conference; however, no identifiable information will be used.

Digital audio recordings will be made of the interviews. These recordings may be transcribed. The sole purpose of the recordings is to provide an accurate account of the interview for later review as I analyze the data and complete the research process. I am the only person who will have access to the recordings. These will be kept on a password protected, secure computer. The audio files will be destroyed at the completion of the study. You have the right to revoke consent at any time. You can also request, at any time during this process, that the tapes and written materials be destroyed.

Risk/Benefits

There are no known major risks with this study, and there is no intent to pass judgment on the college's processes or to critique anyone's performance. Possible minimal risks could include anxiety that what you say will be shared with other college faculty, staff, or students. There may also be concerns that you, or your department, will be judged or represented negatively based on your beliefs/practices regarding students with ADHD. If these or other concerns arise at any

time, you should feel free to voice them. You also have the right to withdraw from the study at any time without any penalty.

The benefit of this research is that you will assist in understanding how students with ADHD manage the time and scheduling demands of college. This study will contribute to the greater body of knowledge on ADHD and hopefully improve the lives of people with this condition.

If you have any questions or concerns about this study, you can contact Erik Rodriguez at edrodr01@maxwell.syr.edu and 315-200-2888 or Dr. Andrew London (my faculty advisor at Syracuse University) at anlondon@maxwell.syr.edu and 315-443-5067. If you have any questions about your rights as a research participant, or you have questions, concerns, or complaints that you wish to address to someone other than the investigator or his advisor, please contact the Syracuse University Institutional Review Board at 315-443-3013.

(You will receive a copy of these forms for your personal records)

I understand that I am participating in this study of my own free will and that I can stop participating in the study at any time.

I am 18 years of age or older, all of my questions have been answered, and I wish to participate in this research study.

_____ I agree to be audiotaped

_____ I do not agree to be audiotaped (if you do not agree to be audiotaped, the researcher will take handwritten or typed notes during the interview).

_____ _____
Signature of participant Date

_____
Printed name of participant

_____ _____
Signature of researcher Date

Erik Rodriguez
Printed name of researcher

Appendix C: Emails to Potential Student Participants

Dear _____,

Hello. My name is Erik Rodriguez. I am a PhD Candidate in Sociology at Syracuse University. Thank you for your interest in participating in this study. The research examines how students with ADHD manage the time and scheduling demands of college, as well as the social and institutional processes that shape what they do. I am looking for interview participants who:

1. Have completed at least one semester of college coursework.
2. Have registered with the Office of Disability Services and provided documentation of an ADHD diagnosis.
3. Are enrolled at ___ for the fall semester and are taking at least 6 credit hours.

Your participation would involve two face-to-face interviews, held at a convenient location on the _____campus. The first interview will be near the beginning of the fall semester and will last approximately one hour. The second will be toward the end of the fall semester and will also take approximately one hour. As a token of appreciation, students who complete the two main interviews will receive a $20 Amazon gift card for each visit ($40 total). Students who begin a main interview, but choose to withdraw their participation, will receive a $10 dollar gift card. Your participation will also involve 15-20 minute follow-up phone calls approximately every two weeks throughout the semester. You have the right to withdraw from the study at any time.

If you agree to be interviewed, I will ask your permission to use a digital voice recorder to tape the interview. All data (e.g., names, places, personal stories) obtained for this project will be kept anonymous and confidential.

If you are willing to participate or would like more information about me or this project, please reply to this e-mail or call me at (315) 200-2888.

Thank you for your time and for considering my request. Your participation will be valuable in understanding and developing strategies for college students with ADHD.

Sincerely,

Erik Rodriguez
PhD Candidate, Sociology
Syracuse University
Syracuse, NY 13244
Email: edrodr01@syr.edu

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Education

Syracuse University, PhD, Sociology, May 2020
University of West Georgia, MA, Sociology, May 2006
Clayton State University, BS, Integrative Studies/Psychology, August 2003
Gwinnett Technical College, AAT, Business/E-Commerce, June 2001

Professional Experience

2011 - 2020	Program Director, Sociology, Gwinnett Technical College
2017 - 2020	Adjunct Faculty, Sociology, Denver College of Nursing
2015 - 2018	Adjunct Faculty, Sociology, Southern New Hampshire University
2015 - 2018	Adjunct Faculty, Sociology, University of West Georgia
2007 - 2010	Graduate Assistant, Sociology, Syracuse University
2006 - 2007	Academic Advisor, Appalachian Technical College

Teaching Experience

Classroom and online course development/teaching experience in both community college and university settings. Courses include:

- Introduction to Sociology
- Medical Sociology
- Death, Grief & Caring
- Sociology of Mental Health and Illness
- Social Problems
- Social Psychology from a Sociological Perspective
- Interpersonal Relations and Professional Development
- Groups and Organizations
- Deviance and Alternative Behaviors
- Research for the Social Sciences

Research Activities

- Doctoral Dissertation (2020). “Time, Schedules, and the College Student with ADHD.”
- Project Leader; Adapt Courseware Study, Gwinnett Technical College, 2013-2014.
- Master’s Thesis (2006). “Diagnosing Attention Deficit Disorder: An Institutional Ethnography.”