FEMALE GRADUATE STUDENTS WITH ADHD: RESILIENCE AS A PROTECTIVE FACTOR AGAINST ACADEMIC IMPAIRMENT

A Dissertation

Presented to the Faculty of

Antioch University Santa Barbara

In partial fulfillment for the degree of

DOCTOR OF PSYCHOLOGY or PHILOSOPHY

by

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December 2023

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ABSTRACT

FEMALE GRADUATE STUDENTS WITH ADHD: RESILIENCE AS A PROTECTIVE FACTOR AGAINST ACADEMIC IMPAIRMENT

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Although Attention Deficit Hyperactivity Disorder (ADHD) was once thought to be a disorder specific to childhood and adolescence, it is now accepted that ADHD symptomatology frequently persists into adulthood (Biederman et al., 2010). In addition to poorer social skills and more relationship problems, young adults with ADHD attain lower levels of educational and occupational achievement (Kuriyan et al., 2012). The overarching goal of this study was to understand how ADHD symptomatology impacted the academic functioning of female graduate students diagnosed with ADHD. This study also sought to understand how female graduate students with ADHD coped with the academically deleterious nature of ADHD symptoms. Additionally, this study focused on resilience; specifically, how female graduate students with ADHD experienced themselves as resilient, and how their resilience impacted the ways they coped with the academic challenges and stressors engendered by ADHD symptomatology. Data were collected using a semi-structured interview protocol. Participants' interview transcripts were coded, analyzed, and interpreted using Interpretative Phenomenological Analysis (IPA). Results revealed five group experiential themes [GETs] and 25 individual themes. To increase the validity of the research findings, themes identified in the researcher's data analysis were audited by the researcher's chairperson. In addition to finding that participants used a wide variety of coping skills to manage their ADHD symptomatology, participants' resilience was

found to protect against academic impairment and promote development and employment of coping skills and strategies. This dissertation is available in open access at AURA, https://aura.antioch.edu/ and OhioLINK ETD Center, https://etd.ohiolink.edu

Keywords: Academic functioning, academic impairment, Attention Deficit Hyperactivity Disorder, ADHD, ADHD symptomatology, coping, coping skills, coping techniques, female graduate students, graduate students, Interpretative Phenomenological Analysis, protective factors, promotive factors, resilience

Acknowledgements

Firstly, I want to express gratitude to the eight individuals who generously and courageously participated in my study. All of you approached me and this project with openness and honesty. When this project felt difficult, I often found energy by reflecting on the perseverance you have all demonstrated throughout your lives. Although each of you is unique, you are all birds of a similar feather. You are all incredibly resilient individuals who have consistently navigated hard times and difficult situations. I wish each of you the best of luck finishing your studies. Stay strong!

I also want to thank my committee members. Each member of my committee helped me tremendously at different stages of this project. Even though this project frequently gave me a headache, no one on my committee ever made my headache worse – in fact, just the opposite. Thank you so much for your hard work, help, and kindness.

I am extremely fortunate in that I have two wonderful parents and two lovely stepparents. Perhaps I am resilient on my own, but I know that the bulk of my resilience comes from the love and support I receive from my family. I love you all more than words can express.

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CHAPTER I: INTRODUCTION

Background

Once thought to be a disorder specific to childhood, Attention-Deficit Hyperactivity Disorder (ADHD) is conceptualized as a chronic neurodevelopmental disorder associated with wide-ranging functional impairment, increased risk of comorbid psychopathology, and legal difficulties (Anastopoulos & King, 2015; American Psychological Association [APA], 2013; Barkley et al., 2008; Meaux et al., 2009). Although many researchers (e.g., Advokat et al., 2011; Heiligenstein et al., 1999; Murphy et al., 2002; Pope, 2010; Schwanz et al., 2007; Wolf, 2001; Wolf et al., 2009) have observed a correlation between ADHD symptomatology and lower academic achievement (i.e., lower grade point averages), dropping out of high school, and being on academic probation, the high numbers of students with ADHD gaining admission into colleges and universities has led some scholars (e.g., Eddy et al., 2018; Gray et al., 2016; Safren et al., 2004; Wilmshurst et al., 2011) to reconsider how and to what extent ADHD symptoms impact academic functioning.

Although college students with ADHD have been subject to numerous quantitative investigations (e.g., Blasé et al., 2009; Eddy et al., 2018; Gray et al., 2016; Heiligenstein, 1999; Lewandowski et al., 2008; Shaw-Zirt et al., 2005; Weyandt et al., 2013), qualitative research on experiences of undergraduates with ADHD is scarce, as is research on the experiences of graduate students with ADHD. Furthermore, while it is possible that empirical investigations into the experiences of college students with ADHD provide meaningful insight into the experiences of graduate students with ADHD, how college students with ADHD prototypically experience and cope with ADHD symptomatology may differ substantially or substantively from how graduate students with ADHD prototypically experience and cope with ADHD symptomatology.

Problem Statement

The lack of research on graduate students diagnosed with ADHD is conspicuous. Researchers' and clinicians' underdeveloped understanding of the experiences, successes, and travails of graduate students with ADHD requires amelioration, given that the abilities, talents, and virtues of individuals with ADHD continue to be obscured by stigmatizing attitudes and behavior. Just as inquiry into the experiences of college students with ADHD has driven clinicians and researchers to reconsider the capabilities of individuals with ADHD, investigating the experiences of graduate students with ADHD has the potential to increase compassion for and knowledge of another population of individuals with ADHD. Many stakeholders (e.g., parents, teachers, clinicians, friends, and romantic partners of individuals with ADHD) stand to benefit from learning how ADHD symptoms impact the academic functioning of graduate students with ADHD and how resilience impacts their ability to cope with the academically deleterious aspects of ADHD symptomatology.

Though substantial time and resources have been devoted to studying ADHD, there continues to be dissension about how ADHD symptomatology impacts the academic, social, psychological, and biological functioning of college students with ADHD. Though the primary symptoms of ADHD (e.g., inattention, hyperactivity, impulsiveness) impede learning and hinder attainment of higher-order cognitive skills (i.e., executive functions) necessary for academic functioning (Arnold et al., 2020), numerous researchers (e.g., Eddy et al., 2018; Meaux et al., 2009; Shaw-Zirt et al., 2005; Wilmshurst et al., 2011) have argued that ADHD symptomatology is one of many factors (e.g., IQ, self-esteem, self-awareness, resilience, depression, anxiety, substance use, social skills, community support) determining academic functioning and academic performance. Due to variation in methodological approaches (i.e., population characteristics,

sample sizes, statistical analyses, and assessment instruments) that inevitably produce discrepant research findings and conclusions, both the research community and the public remain mired in confusion about what ADHD is (i.e., the constellation of symptoms and deficits that constitute the disorder) and what ADHD entails (i.e., the full breadth of the disorder's functional impact).

The decision to conduct research is a pragmatic solution to increasing understanding or correcting ambiguous data. To achieve scientific progress, meaningful research questions must be asked and investigated. This study, a qualitative study focused on understanding specific experience amongst a specific class of individuals, will be guided by the following research questions:

1. How do female graduate students with ADHD experience the impact of their ADHD symptomatology on their academic functioning?
2. How do female graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology?
3. In what ways do female graduate students with ADHD experience themselves as resilient?
4. How does resilience impact the ways female graduate students with ADHD cope with the academic challenges and stressors engendered by ADHD symptomatology?

CHAPTER II: LITERATURE REVIEW

What Is ADHD?

Attention Deficit Hyperactivity Disorder (ADHD) is one of seven neurodevelopmental disorders (Intellectual Disabilities, Communication Disorders, Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, Specific Learning Disorder, Motor Disorders, and Other Neurodevelopmental Disorders) listed in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association [APA], 2013). ADHD is characterized by impairing levels of inattention, disorganization, and/or hyperactivity-impulsivity (APA, 2013). Although inattention symptoms tend to manifest behaviorally in ways such as wandering off task, lacking persistence, having difficulty sustaining focus, and being disorganized, hyperactivity and impulsivity are marked by behaviors such as fidgeting, inability to stay seated, intruding into other people's activities, and inability to wait.

Despite the fact that individuals without ADHD may on occasion demonstrate some, or even all, of the aforementioned inattentive, hyperactive, and impulsive behaviors, it is not appropriate to equate symptom expression with the presence of a full-blown mental health disorder. Instead, the validity of an ADHD diagnosis is contingent upon a licensed mental health professional determining that an individual's symptoms are: (1) out-of-step with either their age or developmental level, (2) sufficiently copious (i.e., the individual's symptom count either meets or surpasses the diagnostic threshold outlined in the Diagnostic and Statistical Manual Fifth Edition (2013) or the International Classification of Diseases and Disorders, 2019, 11th Revision), and (3) are interfering with or impairing their ability to function academically, socially, or occupationally.

What Are Neurodevelopmental Disorders?

Even though neurodevelopmental disorders differ in various ways (e.g., diagnostic criteria, symptom manifestation, concomitant functional deficits), the prodromal symptoms of all neurodevelopmental disorders tend to occur early in a child's development (i.e., before the child enters grade school) and produce impairments in personal, social, or academic functioning (APA, 2013). Although the impairments, deficits, and delays attributed to a given neurodevelopmental disorder vary across individuals, an individual's capacity to function is primarily determined by the severity of their symptoms. Furthermore, although individuals with less severe neurodevelopmental disorders (i.e., disorders with less severe symptoms) often manifest specific learning or executive functioning deficits, more severe neurodevelopmental disorders often result in global impairments in both social skills and intelligence.

Neurodevelopmental disorders are also unique in that individuals with one neurodevelopmental disorder frequently meet diagnostic criteria for another (APA, 2013). Although neurodevelopmental disorders' symptom severity can be partially ameliorated when there is consistent access to resources and sources of support, individuals with neurodevelopmental disorders almost always cope with a certain amount of disorder-related symptomatology throughout their lives. With respect to the chronicity of ADHD symptoms, several researchers (e.g., Willoughby, 2003; Wolraich et al., 2005) have found that individuals diagnosed with ADHD in childhood are prone to experience functional impairment into adulthood, even when their ADHD symptoms remit below the diagnostic threshold.

Distinguishing Features of ADHD

Even though ADHD has a number of features (e.g., age of onset, symptom chronicity, functional impairment) that are similar to other neurodevelopmental disorders, ADHD is unique in that both the expression of symptoms and the severity of symptoms are informed by

environmental factors (e.g., where the individual with ADHD is located, with who(m) they are in close physical proximity) (APA, 2013). In addition to highlighting ADHD symptoms' variability and instability across settings (e.g., "symptoms vary depending on context within a given setting"), the DSM-5 notes that signs of the disorder may be either minimal or absent when the individual with ADHD is "receiving frequent rewards for appropriate behavior, under close supervision, in a novel setting, engaged in especially interesting activities, experiencing consistent external stimulation, or interacting in one-on-one situations (e.g., the clinician's office)" (p. 61).

Another unique feature of ADHD is the extent to which individuals with ADHD are at-risk of developing comorbid (i.e., co-occurring) mental health disorders. Whereas children with ADHD are at greater risk of developing an externalizing such as oppositional defiant disorder and conduct disorder, adults with ADHD are at greater risk of developing either a comorbid substance abuse disorder, anxiety disorder, depressive disorder, or antisocial personality disorder (APA, 2013). Furthermore, whereas the inattentiveness and impulsivity of individuals with ADHD leave them at partial risk for violating societal norms, individuals with one or more Disruptive, Impulse-Control, and Conduct disorders are at high risk of breaching societal norms and/or engaging in hostile relations with authority figures. According to the DSM-5, Oppositional Defiant Disorder (ODD) has been found to co-occur with ADHD in approximately half of children with combined presentation and about a quarter with predominantly inattentive presentation. However, researchers have noted that Conduct Disorder (i.e., a more extreme version of ODD) tends to co-occur in roughly 25% of children and adolescents with ADHD combined presentation.

Another aspect of ADHD distinguishing it from other neurodevelopmental disorders is the number of pharmacological interventions (i.e., drug therapies) available to treat the disorder's symptoms. Studied since the 1960s, central nervous system (CNS) stimulants such as methylphenidate (MPH) have consistently been associated with improved neurocognitive functioning, decreased ADHD symptoms, and enhanced academic and social functioning (DuPaul & Kern, 2011). However, in a study that compared GPAs of over 3,000 American college students with ADHD, Blasé et al. (2009) were unable to observe a performance-enhancing effect between the group taking medication for ADHD and the group not on medication for the disorder. Though ADHD literature is rife with inconsistent findings pertaining to the purported performance-enhancing effects of ADHD medication, its efficacy likely depends on a variety of factors (e.g., the number of ADHD symptoms, the severity of ADHD symptoms, medication type, medication dosage, medication compliance) (Beljan et al., 2012).

ADHD Subtypes

When making an ADHD diagnosis, a clinician must determine the presentation type that best fits an individual's specific constellation of symptoms. The three presentation types currently listed in the DSM-5 include Predominantly Inattentive (six out of a possible nine symptoms of inattention have persisted for at least six months), Predominantly Hyperactive/Impulsive (six out of a possible nine symptoms of inattention have persisted for at least six months), and Combined Presentation (criteria for both Inattentive and Hyperactive/Impulsive have been met for the past six months) (APA, 2013). In addition to diagnosing presentation type, a formal ADHD diagnosis also includes a symptom severity specifier (mild, moderate, or severe) and reflects a clinician's assessment of the degree to which

ADHD symptoms are either contributing to or perpetuating an individual's functional impairment.

Behaviors indicative of ADHD Predominantly Inattentive Presentation include "seeming not to listen, losing materials, having difficulty sustaining focus, and being disorganized" (APA, 2013, p. 32). Although inattentive symptoms tend to look fairly similar in children and adults with ADHD, hyperactive behavior of children with ADHD tends to manifest differently than adults' prototypical presentation due to developmental differences. For example, although hyperactive children with ADHD are prone to exhibit hyperactivity in a conspicuous manner (e.g., "running or climbing in situations where it is not appropriate" and "acting as if driven by a motor"), hyperactive traits of adults with ADHD tend to be expressed more obliquely (e.g., "extreme restlessness" and "wearing others out with their activity") (APA, 2013, p. 60). Nevertheless, there are several hyperactive behaviors children, adolescents, and adults hold in common: excessive fidgeting and tapping, leaving one's seat when remaining seated is expected, intruding on other people's activities and/or conversations, and an inability to play or engage in leisure activities quietly.

Lastly, impulsivity typically manifests as behavior conducted without forethought (i.e., hasty actions) (APA, 2013). Such behavior may reflect a desire for immediate rewards or an inability to delay gratification. Impulsive behavior is also notable with respect to its high potential to endanger/harm the person engaged in the impulsive act (e.g., darting into the street without looking). Examples of impulsive behavior include blurting out an answer before a question is finished, demonstrating difficulty waiting for one's turn (e.g., although waiting in line), interrupting or intruding on other people's conversations, games, activities, and using other people's things without asking or receiving permission.

ADHD Prevalence Rates

Whereas Rushton et al. (2020) contend that the estimated prevalence of ADHD worldwide is 5% to 7%, the DSM-5 states that the base rates of ADHD amongst children and adults are 5% and 2.5% respectively (APA, 2013). Seeking to resolve the gap between estimated prevalence and rates of clinical case identification in American children with ADHD, Song et al. (2019) analyzed data from the National Survey of Children's Health (NSCH) to determine the extent to which this gap was due to surveyors' definitional discrepancies. In making the distinction between prevalence (i.e., estimated true cases in the population by full DSM criteria) and caseness (i.e., the number of children formally identified with and/or treated for ADHD symptomatology), Song et al. (2019) operationalized four levels of confidence (high, medium, low, and extremely doubtful) with a corresponding code (definite, probable, doubtful, and not) to determine the validity of each ADHD diagnosis listed in the NSCH (2007–2012). In alignment with both the prevalence estimate listed in the DSM-5 and Erskine's (2013) Bayesian analysis of a subset of U.S. data used for worldwide prevalence estimates, Song et al. (2019) were highly confident that 5.5% of the NSCH sample met criteria for an empirically valid ADHD diagnosis. Though it is possible that the prevalence rate amongst American children with ADHD is higher 5.5%, the caseness rate identified by Song et al. (2019) is congruent with the epidemiological findings of previous researchers (e.g., Erskine et al., 2013; Polanczyk et al., 2015).

Additionally, Simon et al. (2009) analyzed six separate large-scale epidemiological studies (Almeida Montes et al., 2007; DuPaul et al., 2001; Faraone & Biederman, 2005; Heiligenstein et al., 1998; Kooj et al., 2005; Murphy & Barkley, 1996) to estimate the percentage of adults in the general population meeting criteria for an ADHD diagnosis based on DSM criteria. After carrying out a mix-effect meta-regression, Simon et al. (2009) found that the

pooled prevalence of adult ADHD was 2.5% (95% CI 2.1–3.1). Even though this number was considered conservative, its validity is supported by the current DSM-5 estimate (2.5%) as well as pooled prevalence statistics derived from additional meta-analyses (e.g., Barbaresi et al., 2007; DuPaul et al., 2001; Polanczyk et al., 2007).

Rising Prevalence Rates of College Students With ADHD

The rate at which students with ADHD are attending college has increased substantially in the past 30 years (Eddy et al., 2018). Despite the fact that increasing numbers of high school students with ADHD are attending college, the privacy protection features of the Americans with Disabilities Act (1991) make it difficult to know the exact percentage of college students with ADHD (Wolf, 2001; Wolf et al., 2009). Although prevalence estimates from several older studies (e.g., Heiligenstein et al., 1998; Weyandt, 1995) have suggested that approximately 2% to 4% of college students experience clinically significant levels of ADHD symptomatology, more recent research (e.g., McKee, 2008; Norvilitis et al., 2008; Pope et al., 2007; Pryor et al., 2010) suggests that the percentage could be as high as 8%. In a sample of 1,182 undergraduate psychology students from four universities in the United Kingdom, Pope et al. (2007) found that 6.9% of participants were at risk for ADHD due to having a T-score of 66 or higher on the Conners' Adult ADHD Rating Scale (CAARS). In a cross-cultural study that examined ADHD symptoms amongst college students in China and the United States, Norvilitis et al. (2008) found that 4.4% of American and 7.4% of Chinese students reported significant current ADHD symptoms. Even though 7.4% is at the high end of most prevalence estimate ranges, this figure is not unreasonable. After obtaining self-report ratings from 1,209 college students from the United States, Italy, and New Zealand, DuPaul et al. (2001) found that 7.4% of male Italian students and 8.1% of New Zealand students met enough diagnostic criteria to be diagnosed with ADHD.

The Persistence of ADHD Symptomatology into Adulthood

Once thought to be a disorder that emerged in childhood and remitted in adolescence, numerous researchers (e.g., Biederman et al., 2010; Faraone et al., 2006; Moffitt et al., 2015) have noted that ADHD frequently persists into adulthood. Of the 5% to 8% of children worldwide believed to meet criteria for a diagnosis of ADHD (Spencer et al., 2007), Faraone et al. (2006) have estimated that 15% to 65% will demonstrate ADHD symptoms as adults. Though researchers and clinicians generally accept that it is suitable for adults to be screened for and diagnosed with ADHD, early child-centric conceptualizations of ADHD hindered awareness of the myriad ways (e.g., executive functioning disorders, poor time management, memory disturbance, academic and occupational failure) ADHD symptoms manifest and impair functioning in adulthood (Spencer et al., 2007).

Several early studies of ADHD in adult populations illustrated how adults with ADHD experience ADHD symptoms and resultant functional impairment. In an early study comparing adults with ADHD to their siblings without ADHD, Borland and Heckman (1976) found that adults with ADHD had lower socioeconomic status, more work difficulties, and more frequent job changes. Similarly, Morrison (1980) found that adults with ADHD had fewer years of education and lower rates of professional employment. Murphy and Barkley (1996) corroborated these results upon finding that adults with ADHD reported more psychological maladjustment, more speeding violations, more frequent changes in employment, and were more likely to have multiple marriages.

Theoretical and Empirically Derived Dimensions of Adult ADHD

Firsthand observations of classical ADHD symptoms, in conjunction with the mainstream media's fascination with ADHD in the late 1980s and early 1990s, solidified ADHD's place in

public consciousness (Weiss, 2002). After administering theoretically and empirically derived items to members of a clinic-referred sample of adults diagnosed with ADHD, Conners et al. (1999) established the construct validity of adult ADHD by identifying four highly valid and reliable dimensions: (1) inattention/cognitive problems, (2) hyperactivity/restless), (3) impulsivity, and (4) problems with self-concept (Weiss, 2002). In addition to informing the development of the Conners' Adult ADHD Rating Scale (CAARS), these dimensions informed the subsequent development of additional ADHD screening measures (e.g., Adult ADHD Self-Report Scale Symptom Checklist [ASRS]; Barkley Adult ADHD Rating Scale [BAARS-IV]; Brown Attention Deficit Disorder Scale [BAADS]; Wender Utah Rating Scale [WURS]) that have been instrumental in guiding measurement and understanding of ADHD (Amador-Campos et al., 2016).

The Circularity of ADHD Symptomatology

The tendency for symptoms of ADHD to recur throughout the lifespan is one of the most challenging aspects of the disorder. Both Willoughby (2003) and Wolraich et al. (2005) have found that individuals diagnosed with ADHD in childhood frequently experience significant impairment as adults even when symptoms of ADHD have remitted below the diagnostic threshold. To explain how individuals with ADHD become mired in a feedback loop of negative life experiences and neuroticism, Safren et al. (2004) developed a cognitive behavioral therapy model of ADHD. The model highlights how deficits in attention, inhibition, self-regulation, and emotional regulation render individuals with ADHD vulnerable to patterns of failure, underachievement, negativistic thinking, anxious and depressive symptomatology, and low self-concept. As individuals with ADHD experience consistent bouts of underachievement, Safren et al. (2004) hypothesized that they become increasingly vulnerable to negative thoughts, negative

emotions, and as a consequence, develop negative beliefs about themselves. Once negative thoughts (e.g., “I am a loser,” “I always screw up,” “I am no good at this and will fail anyway so why try?”) become integrated as core beliefs, anxious and depressive symptoms increase, engendering or exacerbating functional impairment (Eddy et al., 2018, pp. 323–324).

ADHD and Comorbid Mental Health Disorders

It is rare for individuals with ADHD to not also experience at least one additional comorbid (i.e., co-occurring) mental health disorder (Jarrett & Ollendick, 2008). Whereas 43% to 93% of individuals with ADHD have a comorbid externalizing disorder (e.g., oppositional defiant disorder, conduct disorder, antisocial personality disorder, substance abuse disorder), 13% to 51% have a comorbid internalizing disorder (e.g., anxiety, depression, somatic disorder, posttraumatic stress disorder) (Jensen et al., 2001; Jensen et al., 1997). Though externalizing disorders co-occur more frequently amongst individuals with ADHD, it is common for individuals with ADHD to also meet criteria for either an anxiety or depressive disorder. Furthermore, whereas 16% to 31% of adults with ADHD also experience major depressive disorder (MDD) (Barkley et al., 1996; Biederman et al., 2008; Kessler et al., 2006; Wilens et al., 2008), the average comorbidity rate of ADHD and anxiety in epidemiological and clinical samples is 25% (e.g., Biederman et al., 1991; Jensen et al., 1997; Tannock, 2000). Though it is generally accepted that comorbid depression manifests as a consequence of negative environmental circumstances engendered by ADHD-related impairments (e.g., academic dysfunction, relational difficulties with peers, teachers, and parents) (Blackman et al., 2005; Herman et al., 2007; Ostrander et al., 2006; Waxmonsky, 2003), explanations for the association between ADHD and anxiety remain hypothetical given that many additional factors (e.g., genetic

history, neurobiological functioning, individual temperament, family environment, social risk factors) are also thought to be involved (Bishop et al., 2019; Jarret & Ollendick, 2008).

Comorbid Anxiety in Children and Adolescents With ADHD

In addition to a lack of consensus about the etiological pathways responsible for the association between ADHD and anxiety, researchers remain divided about how and the extent to which anxious symptomatology impairs social functioning in individuals with ADHD. Whereas some researchers have found that youth with ADHD and a comorbid anxiety disorder experience poorer quality of life, reduced daily functioning, more problematic behaviors (Sciberras et al., 2014), reduced academic functioning (Booster et al., 2010; Karutsis et al., 2000), and more conflicted familial associations (Biederman et al., 1991; Pfiffner & McBurnett, 2006) compared to youth with only ADHD, other researchers (e.g., Greene et al., 1997; March et al., 2000; Mulraney et al., 2016; Sciberras et al., 2014) have found evidence to the contrary. Bishop et al. (2019) suggested three potential reasons for the aforementioned disagreement; namely, that it was due to "considerable variation in the way anxiety was conceptualised (i.e., clinical diagnoses vs anxiety symptoms), the types of anxiety disorders assessed, and the reporters of anxiety and social functioning abilities (e.g., parent, teacher, child)" (p. 403).

To clarify the association between anxiety and social functioning in children and adolescents with ADHD, Bishop et al. (2019) conducted a systematic review of 31 peer-reviewed articles. Though anxiety symptom severity was associated with lower levels of social skills and higher levels of social problems in young people with ADHD, few group differences emerged when anxiety was defined according to diagnostic measures. Although the results from the studies in their review ranged considerably, the researchers found that associations between ADHD, anxiety, and social functioning depended on who (e.g., parent, teacher, child) reported

symptoms of ADHD and anxiety and the characteristics (e.g., age, sex, ADHD subtype, other mental health comorbidities) of those observed. Although youth with ADHD often struggle with anxiety and decreased social functioning, more research is needed to clarify the precise nature of these associations.

Comorbid Anxiety and Depression in College Students With ADHD

More likely than their peers without ADHD to experience depression, anxiety, and other types of psychological distress (Blasé et al., 2009; Heiligenstein & Keeling, 1995; Rabiner et al., 2008; Richards et al., 1999; Weyandt et al., 2013), college students with ADHD are also more likely to report difficulty in relations with parents and peers, lower levels of social skills and social adjustment, and diminished levels of self-esteem (e.g., Grenwald-Mayes, 2002; Shaw-Zirt et al., 2005). To assess the validity of Safren et al.'s (2004) cognitive-behavioral model of adult ADHD, which argues that ADHD-related impairment is perpetuated by dysfunctional cognitions and beliefs, Eddy et al. (2018) recruited a heterogeneous sample of 59 college students diagnosed with ADHD to test the indirect and direct pathways between a history of past underachievement and later functional impairment. Controlling for baseline impairment and changes in ADHD symptoms, these researchers found that the association between prior year GPA and overall impairment at the end of the year was fully mediated through self-concept and symptoms of depression. Dispelling the notion that depressive symptomatology emerges as a consequence of ADHD-related impairment (e.g., Blackman et al., 2005; Herman et al., 2007; Ostrander et al., 2006; Waxmonsky, 2003), it was discovered that participants' academic impairment was not directly associated with depressive symptoms, but was instead directly associated with a negative self-concept, conceptualized as an "important precursor to depressive symptoms in emerging adults with ADHD" (p. 329).

In a related study, Anastopoulos et al. (2018) recruited 443 first-year college students from nine colleges to compare rates and patterns of psychiatric diagnoses between those with and without ADHD. Whereas 55.0% of students with ADHD had at least one comorbid diagnosis and 31.8% displayed two or more, only 11.2% of students without ADHD met criteria for one comorbid psychiatric diagnosis and only 4.0% met criteria for two or more comorbid psychiatric diagnoses. Although differences in comorbidity rates between groups was mainly attributable to higher rates of depressive and anxiety disorders amongst students with ADHD, students with ADHD were observed as having significantly higher rates of comorbid learning disorders, trauma/stress-related disorders, and more symptoms of oppositional defiant disorder (ODD) and conduct disorder (CD). Though the researchers did not speculate as to why individuals with ADHD frequently meet criteria for additional mental health diagnoses, the study's results indicating that first-year college students with ADHD are at increased risk of comorbid depression, anxiety, and learning disorders as well as increased symptoms of Oppositional Defiant Disorder and Conduct Disorder have been validated by numerous researchers (e.g., Barkley et al., 2008; Eisenberg et al., 2007; Kessler et al., 2006; Nigg & Barkley, 2014; Weiss & Hechtman, 1993).

Substance Use and Abuse Amongst College Students With ADHD

Substance abuse, even amongst college students without psychiatric disorders, continues to be a significant problem due to its propensity to lead to diminished academic performance, social-interpersonal difficulties, and engagement in risky behavior (Skidmore et al., 2016; Wechsler et al., 2002). Whereas children with ADHD have been found to initiate drinking earlier and are more prone to abuse alcohol and drugs as adolescents (Molina & Pelham, 2014), college students with ADHD have been found to be at greater risk than their non-ADHD peers of using

alcohol and illicit substances (Heiligenstein & Keeling, 1995; Murphy et al., 2002; Upadhyaya et al., 2005). Approximately three times more likely to have used cannabis or tobacco and about five times more likely to have used other illicit substances than their peers without ADHD (Rooney et al., 2012), college students with ADHD use alcohol more regularly and engage in episodes of binge drinking more often than college students without ADHD (Baker et al., 2012).

To examine differences in substance abuse, depression, and academic functioning in college students with and without ADHD, Mochrie et al. (2020) recruited 1,748 early-college students from the psychology research pool at a large university in the southeastern portion of the United States. The research pool, which was largely female (68.4%) and Caucasian (71.3%), consisted of only freshmen (80.1%) and sophomores (19.9%) between the ages of 18 and 25. As hypothesized, students diagnosed with ADHD were more likely to engage in binge drinking, consumed alcohol more frequently, and were more likely to use marijuana as well as other illicit substances. These findings continued to be true even after controlling for depression scores, which were significantly higher amongst participants with ADHD. Regarding differences in academic functioning, college students with ADHD had lower grade point averages (GPAs) than college students without ADHD; however, these differences were no longer statistically significant when controlling for depression and marijuana use. Although emotional distress and substance use are known to detract from college students' academic performance irrespective of their ADHD status, the results suggested that emotional difficulties and marijuana use negatively impact the academic functioning of college students with ADHD more severely than college students without ADHD.

ADHD Medication Use and Misuse in College Students With and Without ADHD

Despite the fact that ADHD medication, when used appropriately, is known to safely and effectively treat symptoms of ADHD in children, adolescents, and adults (Staufer & Greydanus, 2005; Stevens et al., 2013; Wilens et al., 2020), nonmedical use of prescription stimulants (NMUPS) is associated with numerous troubling correlates, such as lower grades (McCabe et al., 2005), academic concerns (Rabiner et al., 2009), and increased risk for polysubstance abuse (Rozenbroek & Rothstein, 2011). Whereas Benson et al. (2015) found that approximately 17% of U.S. college students engage in NMUPS, the prevalence of NMUPS amongst college students could be as high as 25% (McCabe et al., 2005). Though some studies have suggested that college students misuse ADHD medication for dubious reasons (e.g., to obtain a cognitive advantage; Greely et al., 2008, prolong intoxication; Low & Gendaszek, 2002), other researchers (e.g., Advokat et al., 2008; Faraone et al., 2020; Wilens et al., 2008) have found that college students often misuse ADHD medication to self-medicate symptoms of undiagnosed ADHD. In a cross-sectional survey of 184 college students that examined the link between ADHD medication misuse and a positive screen for adult ADHD symptoms, Peterkin et al. (2011) found that college students who misused ADHD medication were seven times more likely to be symptomatic for ADHD compared to students who did not misuse. Furthermore, whereas 87% of medication misusers claimed that academic reasons drove their decision to misuse ADHD medication, 76% of them believed that the misuse of ADHD medication improved their grades.

In a separate study, Hartung et al. (2013) recruited 1,153 undergraduate students from four public universities located in the Southeast, Rocky Mountain, and Midwest regions of the United States to compare the personal characteristics associated with different patterns of stimulant misuse. Based on self-reported stimulant use, participants were grouped into the following four categories: (1) nonusers (n = 708), (2) nonmedical misusers (i.e., illicitly

obtaining and using stimulant medication without a prescription; *n* = 274), (3) appropriate users (i.e., taking stimulants according to prescription; *n* = 146), and (4) medical misusers (i.e., using higher doses or more frequently than prescribed). In addition to reporting higher rates of combined substance use (e.g., marijuana, hallucinogens, alcohol, pain medication), medical misusers experienced significantly more medication side effects (e.g., insomnia, restlessness). Medication misusers also endorsed significantly higher levels of sensation seeking compared to nonusers and appropriate users. This finding is concerning given that several researchers (e.g., Carlson et al., 2010; Dunlop & Romer, 2010; Zuckerman, 1994) have linked sensation seeking to substance abuse.

The Impact of ADHD on Academic Functioning

The academic functioning (i.e., academic achievement and academic performance) of individuals with ADHD is negatively impacted by the condition's symptoms (Arnold et al., 2020). ADHD's negative impacts on academic functioning are well documented (Barnard-Brak & Brak, 2011; Currie et al., 2013; Langberg et al., 2011; Loe & Feldman, 2007). Furthermore, there is a wealth of evidence (e.g., Biederman et al., 2004; Loo et al., 2007; Miller et al., 2012; Vexelman & Tannock, 2011) that the neuropsychological functioning of individuals with ADHD is further compromised by comorbid deficits in executive functioning. Comprised of five distinct neurocognitive processes—attention, inhibition, reasoning, planning, and working memory—executive functioning is defined as "the ability to maintain an appropriate problem set for attainment of future goals" (Welsh & Pennington, 1989, p. 201). In a review of 18 studies, Pennington & Ozonoff (1996) found that children with ADHD consistently exhibited worse performance on measures of executive functioning. Adults with ADHD also experience significantly more executive dysfunction than adults without ADHD (Holst & Thorell, 2020).

Critical to the "acquisition of complex cognitive tasks such as math computation and reading," executive functions are centrally involved in the completion of nearly all academic tasks (Tamm et al., 2021, p. 124). To test the association between EFDs and academic and psychosocial impairment, Biederman et al. (2004) recruited children and adolescents with (n = 259) and without (n = 222) ADHD. In addition to discovering that significantly more children and adolescents with ADHD had EFDs compared to control participants, it was observed that the presence of EFDs in children and adolescents with ADHD contributed significantly to their already compromised educational functioning and that their impact was independent of socioeconomic standing [SES], intelligence [IQ], or the presence of a learning disorder.

Academic Functioning of College Students With ADHD

Even though school-aged students with ADHD are at higher risk for grade retention, identification for special education services, dropping out of high school, and entering the workforce as unskilled or semiskilled workers (Barkley, 2006; Barkley et al., 2008; Currie & Stabile, 2006), increasing numbers of high school students with ADHD are pursuing college (Wolf, 2001; Wolf et al., 2009). Despite the fact that college students with ADHD manifest higher rates of comorbid learning disabilities and psychiatric difficulties compared to their peers without ADHD, college students with ADHD often manifest higher levels of cognitive functioning, better coping skills, and histories of scholastic success (Glutting et al., 2005; Green & Rabiner, 2012). However, as students with ADHD begin college without previously relied upon supportive systems (e.g., after-school help from teachers, parental supervision, friend groups) and encounter new levels of freedom and distraction, already present neuropsychological vulnerabilities (e.g., self-regulation, time management, organization, task prioritization) tend to be magnified (Arnold et al., 2020; Gray et al., 2016; Meaux et al., 2009). Consequently, college

students with ADHD earn lower grade point averages, are more likely to be on academic probation, and are less likely to graduate from college compared to college students without ADHD (Advokat et al., 2010; Heiligenstein et al., 1999; Murphy et al., 2002; Pope, 2010; Schwanz et al., 2007; Wolf, 2001).

After comparing the neuropsychological, academic, psychological, and social functioning of college students with (n = 24) and without (n = 26) ADHD, Weyandt et al. (2013) found that students with ADHD, on average, scored a full letter grade (i.e., 10 percentage points) lower than students without ADHD on assignments and tests. In addition to scoring significantly lower on all specific and global areas of executive functioning compared to students without ADHD, students with ADHD evinced significantly higher levels of inattention and impulsivity compared to students without ADHD. Though this finding is unsurprising given that inattention and impulsivity are features of ADHD symptomatology, the impact of inattention and impulsivity on academic functioning is likely profound given that both traits negatively impact study habits, study skills, organizational skills, time management, and test-taking strategies (Norwalk et al., 2009; Reaser et al., 2007; Schwanz et al., 2007). The importance of study and organizational skills was recently confirmed by DuPaul et al. (2021), who found that college students with ADHD who learned study and organizational skills through academic support services had better GPAs and were more likely to graduate college compared to college students with ADHD who did not use academic support services.

Coping Strategies of College Students With ADHD

Kaminski et al. (2006) recruited 68 college students with ADHD between the ages of 18 and 23 from a liberal arts college in the eastern United States to identify the coping resources that differentiated academically high-achieving college students with ADHD from their less

academically successful peers with ADHD. After excluding individuals with comorbid learning disabilities and psychiatric disorders, remaining participants were divided into high success (HS) and low success (LS) groups based on their GPA falling above or below sample's mean GPA of 2.61. One of the more notable findings from the study was that participants in the HS group were more likely to possess fewer coping mechanisms than participants in the LS group. Though this correlation appears paradoxical in light of research suggesting that coping mechanisms protect against academic underachievement (e.g., Faigel, 1995; Hallowell & Ratey, 1994; Kaplan & Schacter, 1991; Nadeau, 1994; Quinn, 1993), coping mechanisms are but one of many factors that determine the academic functioning and performance of college students with ADHD. For example, although physical exercise has been shown to help individuals cope with stress, anxiety, and depression (Den Heijer et al., 2017), the researchers found that participants who used physical exercise as a coping technique were significantly more likely to be in the LS group. Despite initially setting out to identify coping resources responsible for the division between HS and LS students, the researchers were unable to identify a single coping technique that predicted high academic success. Instead, the two factors most strongly associated with academic success were freedom from financial concerns and time-management skills.

To better understand how college students with ADHD cope with the challenges of college life and the rigors of college-level education, Meaux et al. (2009) conducted semi-structured interviews with a small sample (n = 15) of college students with ADHD. Thematic analysis of each interview led these researchers to identify three global themes—gaining insight about ADHD, managing life, and utilizing sources of support—each containing separate factors either helping or hindering participants' ability to cope with both ADHD symptomatology and the demands of college life (e.g., independent living, academic stress, studying, managing

relationships). Regarding the first global theme (i.e., gaining insight about ADHD), Meaux et al. (2009) found that while participants' conscious decision to avoid intimate conversations with close friends, family members, and teachers about their ADHD symptoms and concomitant challenges restricted deeper learning and acceptance of their ADHD, the four factors that enhanced participants' insight about their ADHD were: (1) learning through experience, (2) seeking information, (3) acknowledging, and (4) opening up. Furthermore, whereas persistence of ADHD symptoms and addictive behaviors hindered participants' ability to manage their lives, the seven factors that helped participants' cope with their ADHD symptomatology and manage everyday challenges were: (1) being accountable, (2) learning from consequences, (3) setting alarms and reminders, (4) taking/using central nervous system stimulants, (5) engaging in self-talk, (6) removing distractions, and (7) staying busy and scheduling.

Stigmatization of Individuals With ADHD

Originating as a physical marking branded into the skin of social outcasts in ancient Greece, the idea of being stigmatized has a long sociocultural history (Hinshaw & Stier, 2008). In addition to members of racial, ethnic, and religious minorities, adoptees, gay and lesbian individuals, individuals with AIDS, and individuals with physical disabilities, individuals with mental health disorders frequently endure public and private censure. The deleterious ramifications of negative attitudes towards individuals with mental illness are many and include disruption of family functioning, widespread reluctance to seek out mental health services, and decreased funding for psychopathology research (Stier & Hinshaw, 2007). Although the ramifications of ADHD symptomatology are typically observed in terms of their impact on academic and occupational functioning, ADHD symptoms have also been found to negatively affect social functioning (Canu et al., 2008). The negative ramifications associated with

decreased social functioning are numerous, and frequently result in reduced functioning in school and/or work settings, diminished personal happiness, and less personal support.

Impaired Social Functioning as a Precursor to Stigmatization

Rejection from peers and family members is not an uncommon experience for children and adults with ADHD (Canu et al., 2008). This is not surprising given that the core behavioral features of ADHD (hyperactivity, impulsivity, and inattentiveness) are known to predict problems in peer relations (Canu & Carlson, 2003; Sandler et al., 1993; Shaw-Zirt et al., 2005). In addition to the aforementioned behavioral components of ADHD, its various cognitive features, such as deficient empathy, diminished emotional regulation, and poor social problem-solving are positively correlated with negative social performance (Canu et al., 2008). Although certain social deficits experienced by children with ADHD can improve over time, adults with ADHD often demonstrate social maladjustment. Weiss and Hechtman (1993) found that young adults with ADHD report having fewer friends, heterosocial skill deficits, as well as interpersonal difficulties and sexual problems. Likewise, higher levels of marital dissatisfaction and dissolution have also been observed in adults with ADHD (Biederman et al., 1993; Murphy & Barkley, 1996).

Stigmatizing Attitudes of Adults Towards Children With ADHD

To understand the attitudes of U.S. adults towards children with ADHD and other conditions, Pescosolido et al. (2008) analyzed data from the 2002 National Stigma Study–Children (NSS-C) wherein a survey module was administered to a subset of participants in the nationally representative General Social Survey. After finding that less than half (41.9%) of adults were able to correctly identify ADHD based on a vignette that described a child with symptoms meeting diagnostic criteria, the researchers found that approximately 20% of

respondents indicated that they would either probably or definitely be unwilling to interact with the child evincing ADHD symptoms. Furthermore, whereas 23.47% of respondents reported that they did not want their own child to befriend the child described in the vignette, 31% stated that the child described in the vignette was somewhat dangerous or very likely to be violent towards others and 36% viewed that the child as a physical threat to themselves.

In a recent study where adults read separate theoretical accounts designed to explain the origin of a child's ADHD symptoms, Lebowitz et al. (2016) found that adult participants had greater desire to socially distance themselves from children when it was explained that the child's ADHD symptomatology was the result of poor parenting and media exposure (i.e., psychosocial factors) rather than biological factors. Despite being more willing to be in social proximity to the child whose symptoms were attributed to biological factors, participants were more pessimistic about the treatability of biologically-based symptoms compared to the treatability of ADHD symptoms ascribed to psychosocial factors.

Adults' Stigmatizing Attitudes Towards Children With ADHD

To test whether biological attributions of stigmatized behavior lessen negative attitudes and behaviors by reducing perceived causal responsibility (i.e., attribution theory) (Weiner, 1995), Ching and Ma (2021) randomly assigned 174 undergraduate students without ADHD to three experimental conditions wherein members of each group were asked to read a fictitious article about the theoretical causes of ADHD symptomatology. Participants in the first two experimental groups were asked to read an article that emphasized either the determining role of biology or the interplay between biological and environmental factors. Participants in the third (control) group read an article unrelated to ADHD.

Subsequent to reading each article, participants completed surveys measuring: (1) their blame attributions towards children with ADHD, (2) their implicit beliefs about ADHD, and (3) their desire for social distance from children with ADHD. Ching and Ma (2021) found that participants who read the biological determinist article describing biological factors as the determining cause of ADHD symptomatology were less likely to blame children with ADHD for their problems yet more likely to maintain fixed beliefs about ADHD compared to members of the control group; however, their desire for more social distance was not statistically significant. Contrastingly, participants who read the interactionist article highlighting the interplay between biological factors and environmental factors demonstrated less blame attribution, fewer implicit beliefs, and less desire for social distance. Though attribution theory may correctly assert that stigmatization decreases when biological explanations are relied upon to explain something experienced as either unpleasant or distasteful, the researchers found that interactionist explanations had greater potential to prevent the formation of fixed beliefs and reduce blame attributions and desire for social distance, thereby resulting in fewer and less severe stigmatizing attitudes and behaviors.

The Origin of Stigmatizing Attitudes Towards Individuals With ADHD

Stigmatizing thoughts, beliefs, and behaviors about individuals with ADHD exist for many reasons. In support of experimental (e.g., Canu et al., 2008) and observational (e.g., Hinshaw & Melnick, 1995) evidence suggesting that behaviors associated with ADHD are prone to provoke negative feelings, attitudes, and reactions, ADHD meets all three preconditions associated with the greatest degree of stigma, namely: (1) high visibility, (2) perception that symptoms are controllable, and (3) significant misunderstanding from members of the public regarding what the disorder does and does not entail (Crocker et al., 1998; Goffman, 1963).

Traits like inattentiveness, hyperactivity, and impulsivity are often visible across multiple settings, commonly experienced as unpleasant, and frequently met with hostility (Canu et al., 2008). Furthermore, when symptoms are perceived as controllable, Crocker et al. (1998) found that individuals feel less sympathy towards the symptomatic individual as well as more justified in their prejudicial attitudes. In support of the hypothesis that misunderstood disorders are more likely to be stigmatized, Domino (1983) found that a single viewing of the film *One Flew Over the Cuckoo's Nest* predisposed individuals to form long-lasting negative beliefs about mental illness. More recently, Canu et al. (2006) found that only 61% of college students recognized ADHD as "real," whereas the rate of affirmation for major depression and schizophrenia was 80% and 81% respectively.

How Neurotypical College Students View College Students With ADHD

Although there is limited national survey data on adults' stigmatizing attitudes towards adults with ADHD, several studies suggest that college students without ADHD have a propensity to harbor negative attitudes towards college students with the disorder (Lebowitz, 2016). When undergraduate participants were asked to compare their desire to interact with (i.e., collaborate on a project, get to know, become friends with, live with, work with, or date) a peer with ADHD versus a peer with either a general medical problem or an ambiguous flaw (e.g., perfectionism), individuals with ADHD were rated as the least socially desirable group (Canu et al., 2008). In a study that required undergraduates to watch three separate videos of the same actress displaying symptoms of ADHD, a separate mental disorder, and no psychopathology, Paulson et al. (2005) found that ratings of social rejection based upon ratings of "liking" and "willingness to interact with" were significantly higher for the individual portrayed with ADHD compared to the individual portrayed with no psychopathology. Similar findings were noted by

Canu and Carlson (2003) in a study that explored heterosocial relational outcomes in college undergraduates evincing ADHD symptomatology. After a one-minute interaction in a waiting room setting, the researchers found that female undergraduates, despite being blind to participants' diagnostic status, frequently judged male peers evincing ADHD symptoms less favorably than members of the control group who did not display ADHD symptoms. Even though results from the experiment were based on a brief social encounter, the results are congruent with those observed by several other researchers (e.g., Canu & Carlson, 2008; Hoza et al., 2000; Paulson et al., 2005) studying similar phenomena.

Resilience

What Is Resilience?

According to Luthar et al. (2000), resilience refers to a "dynamic process encompassing positive adaptation within the context of adversity" (p. 543). Similarly, Masten (2001) defines resilience as a "class of phenomena characterized by good outcomes in spite of serious threats to adaptation or development" (p. 228). Even though resilience has been defined by different researchers in various ways, the general consensus amongst researchers is that resilient individuals are those who have demonstrated positive adaptation despite exposure to a specific threat or level of adversity capable of jeopardizing normal development (Luthar, 2000; Masten, 2001). To illustrate variation in resilient phenomena, Masten et al. (1990) identified three groups of resilient individuals. The first group consists of at-risk individuals who achieve better-than-expected outcomes (Masten et al., 1990). Individuals in the second group maintain positive adaptation despite the occurrence of stressful experiences (e.g., divorce, job loss) (Johnson & Wiechelt, 2004). Those in the third group demonstrate resilience by recovering well from a traumatic experience (e.g., child maltreatment) (Johnson & Wiechelt, 2004; Luthar et al., 2000).

Origin of Resilience as a Psychological Construct

Originally derived from the Latin verb *resiliere* meaning "to recoil/spring back," the origin of resilience, as a psychological construct, stems from a four-decade-long longitudinal study of approximately 500 economically impoverished individuals born on the Island of Kauai in 1955 (Johnson & Wiechelt, 2004; Wright & Masten, 2015). After assessing study participants' biological and psychosocial development at different points in time (e.g., birth, infancy, early and middle childhood, late adolescence, adulthood) over the course of four decades, Werner and Smith (2001) found that while two-thirds of study participants developed serious problems, the other third developed into compassionate, well-functioning adults despite enduring a very similar set of obstacles. Though resilience was once thought to be a trait primarily correlated with an individual's autonomy or high self-esteem (Masten & Garmezy, 1985), Werner and Smith (1982, 1992) found that factors external to the individual, such as characteristics of an individual's family and broader social community, significantly determined an individual's capacity to be resilient across time and situations. Hence, contemporary conceptualizations of resilience argue that resilience emerges "within a dynamic ecological systems framework between systems and across levels both within and outside the individual" (Dvorsky & Langberg, 2016, p. 370).

Risk & Risk Factors

Commonly associated with positive adaption and adversity, a comprehensive conceptualization of resilience requires explication of four additional conceptually related terms, namely, (1) risk, (2) risk factors, (3) protective factors, and (4) promotive factors. Whereas risk is a probabilistic term indicating elevated probability of a negative outcome for members of a designated risk group, a risk factor (e.g., chronic and severe poverty, malnutrition, lack of maternal education, family violence, substance abuse) refers to "any variable associated with an

elevated probability of a negative outcome for a group of individuals" (Wright & Masten, 2015, p. 5). Despite the fact that risk factors are prone to cause individuals distress, they do not always engender negative outcomes; however, when risk factors produce negative outcomes (i.e., an adverse circumstance), individuals proximal to the adversity are not necessarily impacted in the same ways (Johnson & Wiechelt, 2004). For example, after studying the behavioral and psychological responses of boys and girls exposed to family violence, Kolbo (1996) found that girls were more likely to express behavior problems, whereas boys were more likely to maintain lower feelings of self-worth (Johnson & Wiechelt, 2004).

Cumulative Risk

In addition to observing how gender impacts individuals' experiences of and responses to risk, researchers have identified many other additional moderating variables, such as race, ethnicity, culture, intelligence, socioeconomic status, and birth weight (Johnson & Wiechelt, 2004). Since risks are not uniform and their effects are not evenly distributed, contemporary scholars of resilience have started to conceptualize risk both contextually and cumulatively (Johnson & Wiechelt, 2004; Wright & Masten, 2015). By weighing total risk (i.e., all relevant risk factors) against risk-mitigating/offsetting factors (i.e., protective factors and promotive factors), cumulative risk evaluations strive to assign a probability value to an individual's likelihood of demonstrating, continuing, or recovering healthy functioning or development in spite of risk/adversity (Dvorsky & Langberg, 2016).

Protective and Promotive Factors

Whereas promotive factors promote and predict positive adaptation for nearly all individuals across the entire risk spectrum, protective factors increase the odds of positive adaptation when risk and adversity are especially high (Dvorsky & Langberg, 2016). However,

as research on risk and resilience has evolved, researchers have conceded that protective factors do not always function in accordance with their definition. For example, while a child's tendency to be socially inhibited might protect them from responding aggressively and ending up in a dangerous situation, they are more likely to experience mental health issues related to social stress and anxiety (Wright & Masten, 2015).

Though the distinction between protective and promotive factors is useful, researchers studying resilience have encountered difficulty establishing which factor type – promotive or protective – is most responsible for positive adaptation. As a remedy, Masten (2001) developed a short list of factors strongly associated with resilient outcomes. After dichotomizing resilient behavior as either intrinsic or extrinsic (i.e., within or outside the individual), Masten (2001, 2004) identified three separate "fundamental adaptive systems" to which promotive/protective factors belong: (1) individual mechanisms, (2) family systems, and (3) social-community mechanisms (Dvorsky & Langberg, 2016). Whereas individual mechanisms include intellectual ability, temperament, autonomy, self-regulation, social skills, self-esteem, coping strategies, motivation, and cultural beliefs, protective factors at the family level are family warmth, cohesion, structure, emotional support, positive styles of attachment, and a close bond with caregivers (Farrell et al., 2011; Masten & Obradovic, 2006). Likewise, protective factors within the broader social-community context include positive peer relations, social acceptance, positive school experiences, religious organizations, and relationships with prosocial adults (Masten, 2005; Vaughan et al., 2010).

Resilience-Promoting Factors in Youth With ADHD

Following the supposition that ADHD is a risk factor due to its associations with numerous risky behaviors (e.g., risky sexual behavior, personal injury, risky driving behavior,

unemployment, substance abuse problems) and comorbid risk factors (e.g., comorbid anxiety and depression, executive functioning deficits, relationship impairments) (Barkley et al., 2006; Lee et al., 2011; Molina & Pelham, 2014), Dvorsky and Langberg (2016) conducted an empirical review of the literature on risk and resilience in the context of ADHD to better understand the promotive and protective factors that help youth with ADHD or elevated symptoms of ADHD exhibit resilience (i.e., demonstrate healthy functioning across multiple functional domains despite exposure to risk/adversity). In accordance with the notion that both biological and sociocultural evolutionary systems support human development and adaptation under many conditions (Wright & Masten, 2015), Dvorsky and Langberg (2016) organized their results – promotive and protective factors identified across 21 studies – into three categories: individual factors, family factors, and social-community factors.

Though resilience was once conceptualized as a trait belonging to invulnerable or invincible individuals (Masten, 2001), factors beyond the individual (i.e., family and social-community factors) often help children and adolescents with ADHD demonstrate resilience (Dvorsky & Langberg, 2016). At the social-community level, peer acceptance, positive peer relationships, friendships, and supportive teacher relationships have been found to safeguard against a variety of risk factors (e.g., inattentive symptoms, depressive symptoms, social conduct problems, academic underachievement) (Becker, 2013; Masten & Coatsworth, 1998; Rubin, 2002). At the family level, positive parenting and familial cohesion/support have been identified as resilience-promoting factors due to the ways they enhance attachment and commitment to family values (Dvorsky & Langberg, 2016). At the individual level, positive self-perceptions of competence have been found to protect against the development of depression and internalizing symptoms while promoting quality of life (McQuade et al., 2011; Mikami & Hinshaw, 2006;

Schei et al., 2015). Also, whereas individuals with a sense of self that is realistic and positive are more likely to maintain hope about their future, believe in their ability to positively impact their predicaments, and use resources necessary for overcoming adversity (Rutter, 1987; Werner, 1993; Werner & Smith, 2001), individuals with negative self-concepts are more likely to enlist maladaptive coping strategies and suffer from depression and anxiety (Dumont & Provost, 1999; Levy, 1999; Youngstrom et al., 2003).

Summary

Although the literature on ADHD has successfully delineated the wide-ranging risk factors (e.g., comorbid mental health disorders, social stigmatization, self-esteem deficits, compromised academic functioning, compromised occupational functioning, interpersonal/relational difficulties, substance abuse, antisocial behavior) to which individuals with ADHD are predisposed (Gray et al., 2016; Holst & Thorell, 2020; Shaw-Zirt et al., 2005), the research community's understanding of high-functioning and high-achieving individuals with ADHD remains incomplete. Though progress has been made understanding ADHD symptomatology in individuals with higher levels of functioning (e.g., college students), there continues to be a dearth of research on how ADHD symptomatology impacts female graduate students with ADHD.

The seemingly above-average and, perhaps in some cases, superior ability of graduate students with ADHD to cope with, grapple with, and work around risk directly and peripherally related to ADHD symptomatology suggests that they might be a uniquely resilient population. In addition to dealing with myriad hardships directly linked to their ADHD symptomatology, female graduate students with ADHD have also likely been subjected to stigmatization as a consequence of their ADHD symptomatology. In addition to seeking deeper understanding into

how female graduate students with ADHD experience the impact of their ADHD symptomatology on their academic functioning, this study aims to discover how female graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology, how female graduate students with ADHD experience themselves as resilient, and how resilience impacts the ways female graduate students with ADHD cope with the academic challenges and stressors engendered by ADHD symptomatology.

CHAPTER III: METHODOLOGY

Qualitative Research

Qualitative research seeks to "promote a deep understanding of a social setting or activity as viewed from the perspective of research participants" (Bloomberg & Volpe, 2019, p. 38). Whereas a quantitative researcher adopts an etic (i.e., outsider) point of view and attempts to remain objective, unbiased, and impartial, a qualitative researcher adopts an emic (i.e., insider) point of view and acknowledges that their personal values and experiences bear on their study's methods, findings, and conclusions (Ravitch & Carl, 2016). Since qualitative researchers function as both data-collectors and data-interpreters, research consumers' ability to make sense of research findings and conclusions hinges on the quality of the researcher's "thick description" (Bloomberg & Volpe, 2019, p. 43). Thick description connotes a "depth of contextual detail, usually garnered through multiple data sources" allowing readers "enough information and a depth of context so that they can picture the setting in their minds and form their own opinions about the quality of the research and the researcher's interpretations" (Ravitch & Carl, 2016, p. 194).

Issues of Validity and Reliability within Qualitative Research

Since validity and reliability are terms more relevant to quantitative research, the value of qualitative research is determined by its perceived quality (Smith et al., 2009). To address the issue of quality in qualitative research, Ravitch and Carl (2016) proposed four pillars of high-quality qualitative research: criticality, collaboration, rigor, and reflexivity. Whereas researchers' commitment to criticality requires consideration of issues pertaining to power and equity and their impact on participants' responses and the representation of those responses, researchers demonstrate collaboration by "engaging participants and others connected to the research in

thoughtful and deliberate ways though dialogic engagement practices that support a critical stance" (Bloomberg & Volpe, 2019, p. 46). Furthermore, qualitative research is deemed rigorous when a researcher is appropriately responsive to "emerging meanings derived from the data," adheres to a "systematic approach to data collection and analysis," understands and represents "as complex and contextualized a picture as possible," and "transparently addresses the challenges and limitations of their study" (Bloomberg & Volpe, 2019, p. 46). Lastly, a qualitative researcher demonstrates reflexivity by "acknowledging, examining, and understanding" how their positionality (i.e., their social and cultural background, assumptions, and beliefs) impacts the research process (Bloomberg & Volpe, 2019, p. 46).

Research Questions

This study, a phenomenological investigation into the lived experiences of female graduate students with ADHD, was guided by the following questions: (1) How do female graduate students with ADHD experience the impact of their ADHD symptomatology on their academic functioning; (2) How do female graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology? ; (3) How do female graduate students with ADHD experience themselves as resilient? ; (4) How does resilience impact the ways female graduate students with ADHD cope with the academic challenges and stressors engendered by ADHD symptomatology?

Interpretive Phenomenological Analysis (IPA)

Interpretive phenomenological analysis (IPA) is a recently developed and increasingly utilized qualitative approach (Smith & Shinebourne, 2012). Similar to other phenomenological methodologies, IPA's overarching aim is to study subjective experience (Peoples, 2021).

Principally informed by the work of Edmund Husserl and Martin Heidegger, IPA's theoretical touchstones are phenomenology, hermeneutics, and idiography (Smith & Shinebourne, 2012).

Phenomenology

Phenomenology is both a philosophical approach and research methodology (Bloomberg & Volpe, 2019). The purpose of phenomenological research is to investigate the qualities of and meanings affixed to individuals' lived experiences to "identify the core essence of human experience or phenomena as described by research participants" (Bloomberg & Volpe, 2019, p. 54). Husserlian phenomenologists aim to locate the essential (i.e., transcendental) aspects of human experience by focusing on the fundamental features of experience; namely, what is felt affectively and viscerally as well as what is understood cognitively (Bloomberg & Volpe, 2019; Peoples, 2021). Subsequent to its development by Edmund Husserl, several key theorists (e.g., Heidegger, Merleau-Ponty, Sartre) moved phenomenology beyond its initial focus on the intrapsychic (i.e., conscious) aspects of human experience (Smith et al., 2009). Whereas Merleau-Ponty's account of phenomenology focused on embodiment and its implications (e.g., "we can never share entirely the other's experience because their experience belongs to their own embodied position in the world"), Sartre and Heidegger focused on how culture, language, relationships, and positionality shape human experience (Smith et al., 2009, p. 19). In accordance with their view that human experience is "embedded and immersed in a world of objects and relationships, language and culture, projects, and concerns," Merleau-Ponty, Heidegger, and Sartre believed that full knowledge of experience could not be apprehended solely through inward reflection of our own perceptual experience; instead; a more complete account required both interpretative and analytic efforts to render perceptual experience meaningful (Smith et al., 2009, p.21).

Hermeneutics

Originally used as a method to augment the validity of biblical text interpretation, hermeneutics is a major theoretical underpinning of IPA (Smith et al., 2009). To accommodate his belief that the meaning of experience is not always "self-evidently visible," Heidegger assimilated hermeneutics into phenomenology to bolster the legitimacy of interpretations related to the hidden (i.e., latent) aspects of experience (Smith & Nizza, 2022, p. 7). According to Smith & Osborn (2003), IPA research involves a "double hermeneutic" given that both the researcher and participant are engaged in their own sense-making processes; that is, as the participant attempts to make sense of their experience, the researcher attempts to make sense of the participant's account. Hence, data derived from IPA research interviews are a co-construction (Smith et al., 2009). In addition to asking questions that prompt participants to analyze their lived experiences at higher levels of abstraction, IPA researchers function within a hermeneutic circle wherein participants' analyses are continuously framed, analyzed, and juxtaposed against the contents of their own "experientially informed lens" (i.e., their preconceptions and prior knowledge) – which inevitably shape their analysis, interpretation, and understanding of participants' accounts.

Idiography

IPA is conceptualized as an idiographic approach due to its concern with the particular experience of the individual (Smith & Shinebourne, 2012). In the same way phenomenology functions as both a research method and epistemology (i.e., theory of knowledge), the epistemic principles of idiography focus and guide its methodology. Although nomothetics and idiography are both concerned with how knowledge is established and organized, they are diametrically opposed in their views about how knowledge is accumulated. Whereas nomothetic researchers

posit that knowledge is accumulated in a top-down manner whereby general knowledge creates understanding of "specifics" and "cases in particular," idiographic researchers argue that knowledge of specifics is a precondition for knowledge of things-in-general (Larkin et al., 2006, p. 103).

Philosophical Assumptions

Some of the philosophical assumptions within phenomenology include: (1) the notion that phenomenological methods allow researchers to make valid and reliable observations and conclusions about both the nature and meaning of individuals' lived experiences; (2) the existence of universal, present, and transcendental features of human experience; (3) the discernibility and intelligibility of an experience's essence; (4) researchers' ability to bracket their own experiences to the extent required for a fresh perspective vis-à-vis the phenomenon under investigation; and (5) semi-structured interviews' ability to validly and reliably elicit research participants' private psychological experiences (Bloomberg & Volpe, 2019). In addition to assuming that reality is an intellectual construction and that hermeneutic practices are capable of producing insight phenomenologists seek, phenomenology's adherence to an idiographic approach assumes that knowledge about things-in-particular must be achieved prior to knowledge of things-in-general (Larkin et al., 2006).

Husserl's Phenomenology

Building on the work of previous researchers (e.g., Giambattista Vico, Franz Brentano, William Dilthey), Edmund Husserl (1859-1938) developed phenomenology as a qualitative research method to get to the "pure essence of a phenomenon" (Peoples, 2021, p. 30; Wertz, 2005). In accordance with Husserl's desire to locate the essential aspects of phenomena,

Husserlian phenomenologists seek to understand how human minds apprehend phenomena and imbue it with both practical and emotional meaning (Peoples, 2021; Wertz, 2005).

Husserl's phenomenology begins with the mandate that scientific knowledge must start with a fresh and unbiased description of its subject matter (Wertz, 2005). To carry out this goal, Husserl used two procedures called *epochés* as safeguards against biased description, experience, and descriptions of experience. Husserl's first *epoché* requires the researcher to bracket themselves from all natural scientific theories, explanations, hypotheses, and conceptualizations of the subject matter. The goal of bracketing is to deliver the phenomenological investigator to the "natural attitude of the prescientific life-world" (*Lebenswelt*) whereby phenomena are experienced simply "as they are lived" (Wertz, 2005, p. 168).

Whereas Husserl's first epoché required phenomenologists to bracket (i.e., abstain) from all presuppositions (e.g., natural scientific theories, explanations, hypotheses, conceptualizations) about the phenomenon-under-investigation, Husserl's second *epoché* required phenomenologists to bracket their "naïve belief in the existence of what presents itself in the life-world" and instead focus on the subjective elements of human experience and meaning-making (Wertz, 2005, p. 168). Since Husserl believed that human knowledge could be improved through processes designed to improve perception and reasoning, Husserl developed a method called *eidetic reduction*; that is, a continuous series of "describing and reflecting upon every salient particularity of a given phenomenon" (Smith et al., 2009, p. 14). Husserl believed eidetic reduction was successful when it allowed a phenomenologist to locate the essential (i.e., transcendental and invariant) set of properties "lying underneath the subjective perception of individual manifestations of that [phenomena]" (Smith et al., 2009, p. 14). Moreover, eidetic description answers questions about what a phenomenon is, what a phenomenon means to us in

lived experience, and how a phenomenon is experienced practically and emotionally (Wertz, 2005).

Heidegger's Phenomenology

Though Heidegger was intrigued by Husserl's initial quest to discover the essence of phenomena, he questioned whether essence could be apprehended in the absence of interpretation. One of the foremost building blocks of Heidegger's phenomenology is the idea that a person is always a person-in-context (Smith et al., 2009). Heidegger uses the word *Dasein* to describe human beings' embeddedness in the world by explaining that human beings are "always amidst and involved with some kind of meaningful context" (Larkin et al., 2006, p. 106). Given human beings' embeddedness in a meaningful world, our ability to understand it is contingent upon the following two premises: firstly, that "we are a function of our various involvements with that world" and, secondly, that "the meaningful world is also a fundamental part of us" (Larkin et al., 2006, p. 106).

The first goal of the Heideggerian phenomenologist is to sensitively and responsively reveal a subject matter as it manifests on its own terms; however, because the phenomenologist is a person-in-context, they are never able to fully escape the impact of a concept Heidegger called *foreconception* (Larkin et al., 2006, p. 108). To explain the epistemic and methodological limitations attributable to foreconception, Heidegger (1962/1927) states: "Whenever something is interpreted as something, the interpretation will be founded essentially upon the…foreconception. An interpretation is never a pre-suppositionless apprehending of something presented to us" (Heidegger, 1962/1927, pp. 191-192, as cited in Smith et al., 2009, p. 25). Even though foreconception renders Husserlian phenomenology a practical impossibility, Heidegger's phenomenology can still enhance and increase human knowledge and understanding.

Nevertheless, the amount of knowledge garnered through phenomenology depends on a phenomenologist's initial and continued sensitivity to their subject matter and their willingness to adjust their assumptions about their observations (Larkin et al., 2006).

Since Heidegger believed that appearance has a dual quality whereby things have both visible and hidden meaning, phenomenologists working within the Heideggerian paradigm seek to observe and understand a phenomenon as "it shows itself" and as "it is brought to light" (Smith et al., 2009, p. 24). Apprehension of a phenomenon's hidden meaning requires *logos*, or the "ability to make manifest what one is talking about in one's discourse" (Heidegger, 1962/1927). Logos (i.e., interpretation, analysis, and synthesis) helps the phenomenologist apprehend aspects of a phenomenon that are not immediately discernible through the senses (Smith et al., 2009). Though Heidegger accepted that fore-conceptions (i.e., prior experiences, assumptions, preconceptions) could mar observation if actively used in the process of understanding, his concerns about foreconception diverged from Husserl's. Whereas Husserl argued that phenomenologists needed to separate (i.e., *bracket*) themselves from the "taken-for-granted world" to identify the "core structures and features of human experience as given in consciousness," Heidegger maintained that forestructure was only made conscious (i.e., intelligible) through logos-based processes (i.e., hermeneutic interpretation) and therefore did not contaminate how phenomena were experienced or made meaningful (Smith et al., 2009, p.13).

Participant Recruitment

Before prospective study participants were contacted, the researcher emailed Antioch University provosts and chairs to formally request permission to recruit study participants (Appendix A). Following this initial contact, direct contact with study participants was made following electronic mail (e-mail) dissemination of a participation recruitment flyer (Appendix

B). The participation recruitment flyer was sent by program chairs or program coordinators from different Antioch University graduate school programs (masters and doctoral level) to Antioch University graduate students' Antioch-based Gmail accounts. Embedded in the participation recruitment flyer was a link [https://mattinglydissertation.com] to a survey screener (Appendix C) containing a series of questions designed to screen-in individuals who met all of the study's inclusion criteria and failed to meet any of the study's exclusion criteria while screening-out individuals who failed to meet all of the study's inclusion criteria or met one or more exclusion criteria. Individuals determined ineligible to participate in the study were thanked for their time and informed via email that they would not be invited to move forward in the study. Individuals who were eligible to participate in the study received a follow-up email to schedule their 45-60 minute Zoom-based audio and visually recorded interview. Participants who passed preliminary screening measures and completed the 45-60 minute Zoom interview were awarded a $50 Amazon gift card.

Participants

Inclusion Criteria

Individuals were allowed to participate in the study if they were currently enrolled in a graduate school program (master's or doctoral level) and had at least one elevated score (i.e., a T-score $\geq 65 - 90^{th}$ percentile or higher) on one of the five ADHD subscales (e.g., inattention/memory problems, hyperactivity/restlessness, impulsivity/emotional lability, problems with self-concept, ADHD index) derived from the Conners Adult ADHD Rating Scale Self Report: Short Version (CAARS–S:S). The CAARS-S:S takes approximately 10 minutes to complete and screens for the core symptoms ADHD, including symptoms of all three DSM-IV subtypes of ADHD.

Exclusion Criteria

Graduate students with ADHD were deemed ineligible if they endorsed any of the study's exclusion criteria: (i) history of head trauma and/or concussion requiring hospitalization, (ii) history of psychotic symptoms or diagnosis of psychosis, (iii) diagnosis of a comorbid learning disorder (LD), (iv) current use of illegal substances or cannabis, (v) current use of psychotropic medication, (vi) current misuse of ADHD medication (i.e., taking either more or less medication than prescribed), or (vii) current alcohol abuse. Although the first six exclusion criteria were based on self-report, participants' alcohol use was verified using the Brief Michigan Alcohol Screening Test (bMAST).

CAARS-S:S Reliability & Validity

The CAARS-S:S was selected to verify participants' self-reported ADHD diagnosis due to its strong psychometric properties. Reliability estimates (i.e., internal consistency, test-retest values) of the CAARS-S:S indicate that that the instrument is highly reliable. Test-retest values of the CAARS-S:S range from .77 to .91. (e.g., Amador-Campos et al., 2014; Erhardt et al., 1999; Wu et al., 2009). Using large samples (i.e., $N \geq 400$) from the United States, Canada, China, Germany, and Spain, estimates of the internal consistency of the CAARS-S:S for subscales and total score range from .49 to .97 (e.g., Amador-Campos et al., 2014; Conners et al., 1999; Christiansen et al., 2012; Erhardt et al., 1999; Wu et al., 2009). In regards to the validity of the CAARS-S:S, various researchers (e.g., Adler et al., 2008; Belendiuk et al., 2007; Kooij et al., 2008; Patel, 2011) found that both the convergent and discriminant validity for the CAARS-S:S ranged from .42 to .75.

bMAST Reliability and Validity

The Brief Michigan Alcoholism Screening Test (bMAST; Pokorny et al., 1972) is an alcohol screening instrument that has been used extensively across a range of clinical and research settings to assess the severity of problem drinking (Connor et al., 2007). Originally derived from the 25-item Michigan Alcoholism Screening Test (MAST), the bMAST is a briefer (10-item) screening measure that asks test-takers to answer "yes" or "no" to series of questions about their past alcohol-related experiences (e.g., "Have you ever been arrested for drunk driving or driving after drinking?"; "Have you ever lost friends or girlfriends/boyfriends because of drinking") and their current perceptions of their alcohol use (e.g., "Do you feel you are a normal drinker?"; "Do friends or relatives think you are a normal drinker?") (Connor et al., 2007, p. 771).

Developed one year after the introduction of the MAST, the 10 items comprising the bMAST were chosen based on "visual inspection of the best 25 MAST items" and "acceptance of Selzer's (1971) weighted items" (Connor et al., 2007, p. 772). Concurrent validation, provided by comparing items on the bMAST and MAST, resulted in very high item association (.95 for the alcoholic group, .96 for the nonalcoholic group, and .99 for the combined group) (Connor et al., 2007). To investigate the validity of the bMAST as a problem-drinking severity marker in alcohol dependence, Connor et al. (2007) recruited 6,594 patients referred to a hospital for alcohol-use disorders to evaluate both the construct and concurrent validity of the bMAST. Whereas construct validity of the bMAST was evaluated to establish whether the measure is "best represented in a multidimensional or unitary manner," the concurrent validity of the bMAST was examined through "simultaneous measurement of alcohol consumption, clinically assessed features of alcohol-dependence severity, and administration of the Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993) (Connor et al., 2007, p. 772).

Following more than 6,500 administrations of the bMAST in patients referred for alcohol-use disorders or attending an outpatient alcohol-dependence treatment program, Connor et al. (2007) found that both the single-factor and two-factor scoring of the bMAST were as effective as the AUDIT in assessing dependence severity.

Informed Consent

Informed consent was sought and attained prospectively. Both the Informed Consent Form (Appendix D) and the Authorization to Audio Record Form (Appendix E) were written in simple language at an approximately 8th grade reading level. Once participants signed both informed consent forms, participants were allowed to participate in a 45–60 minute semi-structured interview (Appendix F).

Participant Privacy

Both the audio and visual components of participant interviews were recorded on Zoom. In addition to using Zoom's live audio transcription, the researcher used the Voice Memos app for iPhone in case Zoom's live audio transcription failed or produced an invalid transcript. Information stored on the principal investigator's iPhone was protected using a six digit passcode. Confidential information (e.g., interview transcripts, field notes, screening forms, audio files, video files) obtained during data collection was stored in a locked box inside the researcher's desk and on the researcher's password-protected laptop computer.

Participants audio recordings and data were immediately deidentified using a numbering system (e.g., Participant #1, Participant #2, Participant #3…). Consent forms, contact information, and list of participant names were stored separately in a locked cabinet. Participants' verbatim responses to interview questions discussed in Chapter IV (Results) were ascribed to the aforementioned participant numbering system. All confidential information will

be erased, shredded, and disposed of in a confidential manner by the researcher under the following schedule: audio recordings immediately after transcription; participant contact information 1 year; consent forms and participant name/ID number list 3 years; interview transcripts, field notes, digital data files 7 years.

IPA Procedures

Data collection

Data for this study were obtained using a semi-structured interview protocol (Appendix F) containing six primary questions and additional prompts. The face validity of the semi-structured interview protocol was reviewed and confirmed by the researcher's chairperson. Eligibility to participate in the 45–60 minute Zoom-based interview was determined following participants' completion of the study's survey screener (Appendix C). In addition to capturing participants' demographic information, the survey screener asked a series of questions pertaining to the study's inclusion and exclusion criteria. Before commencing the interview, the researcher ensured that each participant had fully reviewed and understood both the Informed Consent form (Appendix D) and the Authorization to Audio Record form (Appendix E). At the end of each interview, participants were allowed to debrief with the researcher. Referrals for mental health services were available in case they were requested or their issuance was deemed clinically appropriate. After confirming successful capture of the audio from a participant's interview, the researcher uploaded the corresponding audio file to a third-party transcription service to obtain a verbatim transcript.

Data analysis

Data analysis procedures commenced following receipt of each verbatim transcript. The first stage of the data analysis involved reading over each transcript, listening to the

corresponding audio file to ensure the transcript's accuracy, and making exploratory notes in the margins of each transcript. The exploratory notes fell into three categories: descriptive, linguistic, and conceptual. The primary aim of descriptive notes is to summarize what the participant explicitly communicates (Smith & Nizza, 2022). In addition to focusing on the words participants used to describe their experiences, linguistic notes highlighted participants' particular ways of speaking; e.g., tone of voice, emotionality, repetition of certain phrases, pauses, moments of hesitation. Finally, conceptual notes were important for two main reasons. In addition to tracking how participants conceptualized their own experiences, they allowed the researcher opportunity to make note of their personalized understanding of participants' experiences (Smith & Nizza, 2022).

The next steps in the data analysis involved formulating experiential statements and finding connections between experiential statements to create tables of personal experiential themes [PETs]. Experiential statements were formulated to concisely summarize what a participant had explicitly or implicitly communicated. Capturing a participant's implicit communication was tantamount to capturing the "psychological substance" of the participant's communication (Smith & Nizza, 2022, p. 43). Once experiential statements had been made throughout the entirety of a transcript, they were clustered (i.e., grouped) together according to their thematic content and organized into tables of PETs. Each PET consisted of a hierarchy of personal experiential statements, and each personal experiential statement was linked to a verbatim portion of a participant's interview transcript. Multiple tables of PETs derived from each participant's transcript were formulated prior to being compared to other participants' PETs in the cross-case analysis.

Before common patterns and idiosyncratic differences could be accurately discerned, individual tables of PETs had to be compared across cases. This comparative process yielded tables of group experiential themes [GETs]. GETs were derived from and supported by individual themes whose conceptual formulation was informed and supported by participants' verbatim accounts. Although each GET was supported by individual themes, GETs were abstractions derived from multiple rounds of interpretation and analysis. Themes gained their status based on the number of times they were endorsed across cases. For a theme to be declared, at least half of study participants (N=4) had to endorse it. In the final analysis, five GETs were produced, yielding a total of twenty-five individual themes.

Auditing

Although the researcher was solely responsible for all aspects of data-gathering and data analysis, the researcher intermittently consulted with his chairperson to discuss the face validity of emergent personal experiential themes, the face validity of individual themes in the cross-case analysis, and the conceptual coherence of group experiential themes. Commitment to rigorous data analysis was demonstrated by adopting Smith et al.'s (2009) exclusion criteria for emergent group experiential themes. To ensure the conceptual validity of each group experiential theme, at least half of study participants (N=4) had to endorse one or more individual themes informing its conceptualization.

CHAPTER IV: RESULTS

Research Questions [RQs]	Group Experiential Themes [GETs]	Themes
RQ1: How do female graduate students with ADHD experience the impact of their ADHD symptomatology on their academic functioning?	**GET #1:** Hindrance to academic functioning and academic success	• Impaired cognitive functioning • Mental health struggles due to ADHD-related frustration • Hyperfocus • Procrastination • Difficulties with focus
RQ2: How do female graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology?	**GET #2:** Utilizing self-care strategies	• Multifaceted approach to self-care • ADHD medication • Staying organized • Working with a psychotherapist
RQ3: In what ways do female graduate students with ADHD experience themselves as resilient?	**GET #3:** Persevering through hardship	• Surviving to thriving • Early-in-life subjection to and recovery from adversity • Willingness and ability to adapt • Surprised by her own resilience • Heightened focus, energy, and motivation in challenging situations • Persevering through failure • Greater resilience than her peers when coping with ADHD symptomatology
RQ3: In what ways do female graduate students with ADHD experience themselves as resilient?	**GET #4:** Connecting to internal sources of strength	• 'Never quit' attitude • Learning to give herself grace • Deriving self-confidence from seeking additional support • Confidence in ability to activate resilience on-demand

		• Conceptualizing creativity as a problem-solving tool
RQ4: How does resilience impact the ways female graduate students with ADHD cope with the academic challenges and stressors engendered by ADHD symptomatology?	**GET #5:** Implementing strategies to improve academic functioning and psychological wellbeing	• Making accommodations or seeking out help • Time management • Leveraging atypical attentional regulation • Embracing a positive mindset

RQ #1: How do female graduate students with ADHD experience the impact of their ADHD symptomatology on their academic functioning?

Research Question [RQ]	Group Experiential Theme [GET]	Themes
RQ1: How do female graduate students with ADHD experience the impact of their ADHD symptomatology on their academic functioning?	**GET #1:** Hindrance to academic functioning and academic success	• Impaired cognitive functioning • Mental health struggles due to ADHD-related frustration • Hyperfocus • Procrastination • Difficulties with focus

One group experiential theme [GET] was interpreted in relation to how female graduate students with ADHD experience the impact of their ADHD symptomatology on their academic functioning: Hindrance to academic functioning and academic success. This GET was derived from five individual themes: impaired cognitive functioning, mental health struggles due to ADHD-related frustration, hyperfocus, procrastination, and difficulties with focus.

GET#1: Hindrance to academic functioning and academic success

Theme 1A: Impaired cognitive functioning

Half of the participants endorsed experiencing impaired cognitive functioning due to their ADHD symptomatology. Participant #1, who struggles with inattentive ADHD symptomatology,

described how her inattentive symptoms hinder her ability to focus on reading, an ability critical to the completion of many academic tasks:

> "I mean I love reading, but just sometimes I can't read. I just can't focus, and sometimes just trying to keep on one task is really difficult. I seem to just want to do a million tasks all at once, but not finish any of them"

Participant #1 also bemoaned the negative impact of her reading challenges on her academic functioning in graduate school: "We have a ton of reading, as everybody does as a student, and sometimes it's really challenging to get through all of that." Similarly, Participant #3, a self-described auditory learner, shared how a reading-heavy curriculum negatively impacted her academic functioning as early as high school: "I was in a lot of gifted programs in elementary [school], however, when I got into high school where it was more reading heavy…where it was me having to read to attain information, it just was not happening." Whereas the cognitive difficulties experienced by both Participant #1 and Participant #3 were localized to reading and reading comprehension, Participant #2 shared about her academic struggles and her attempts to compensate: "Over the years, I have overcompensated with my organizational skills…because I miss so many details, I've become very obsessive about details." Despite Participant #2's best efforts to keep herself organized, her academic work remains negatively impacted: "I still miss assignments, and I still forget things." Participant #4, who also endorsed the difficulty of remembering things and attending to small details, shared about her experience consistently struggling with grammar: "In school…I would make a lot of errors with grammar and little things like that, but overall, I was smart enough to pull through." Despite their unique struggles or perhaps to some degree because of them, these individuals have all found ways to either work through or around their ADHD symptoms and ascend the ranks of higher education.

Theme 1B: Mental health struggles due to ADHD-related frustration

Five participants testified to struggling with mental health issues due to how their ADHD symptoms manifested in the academic context. Common amongst these experiences were feelings of frustration, guilt, shame, anxiety, apathy, and burnout. Already experiencing distress due to boredom and frustration in school, Participant #2 described how her parents' reaction to her academic performance exacerbated her mental health struggles: "Looking back, I really wish that people had considered that maybe there was something else going on…my parents thought I was lazy and just wasn't committed." Whereas Participant #2's academic underperformance negatively impacted her relationship with her parents, the impact of Participant #3's procrastination was localized to her self-concept: "[I've] told myself that I'm a procrastinator and then that bleeds into how you look at yourself, that you're disorganized…that you are kind of a mess." Participant #5 also endorsed engaging in negative self-talk on an occasion where she'd realized that she hadn't done any of the reading she'd planned to do many hours earlier:

> "I would get so distracted by anything and everything…and I'd be like, it's 9pm right now and I haven't read anything. I had a lot of feelings of guilt and inadequacy and similar thoughts of what's wrong with me? Am I just stupid? Why can't I get this?"

Similarly, Participant #8 addressed feelings of shame about her tendency to procrastinate and overestimate her ability to complete academic tasks in a short time period:

> "There's the procrastination that's really intense that creates anxiety…I always think there's more that I can do than I can actually do. So, there's disappointment in that…and there's a little bit of shame. There's a little bit of I am certainly not living up to my potential here"

Despite variance in source (i.e., self vs. external world) and type of negative emotion (e.g., shame, guilt, apathy, burnout), more than half of the study's participants endorsed experiencing some degree of psychopathology as a consequence of their ADHD symptomatology.

Theme 1C: Hyperfocus

Half of the participants described experiencing a state of attentional regulation called hyperfocus. Individuals in possession of this ability are able to attend to a singular task with heightened levels of concentration for atypical lengths of time. For Participant #2, the stress and anxiety she experiences right before a school assignment is due frequently galvanizes her into a state of hyperfocus: "when I have deadlines, I can bust stuff out pretty efficiently…I will literally work on a project or homework for 10 hours." Participant #3 conceptualized her capacity to hyperfocus as an ability borne out of her passion for what she's studying in graduate school: "I [was] able to hyperfocus…and knock out certain things because I found my graduate program interesting, because it was…specific and interesting to me." Although some participants spoke about the academic advantages of hyperfocus, others found that it could also hinder their academic performance. Acknowledging the negative impact of hyperfocus, Participant #4 alluded to an experience she had while studying for finals:

> "I had finals due, it was finals week, and I woke up and I was like, I really think this is a good time to pick up sewing. And I went to the store bought a sewing machine, got all the materials, and spent from morning until night…sewing this jumpsuit. Didn't do anything else….didn't eat"

Although Participant #7's hyperfocus didn't divert her attention towards other pursuits, it caused her to second guess her academic work to the point where her papers no longer made sense:

> "I would reread it over and over again, [to] the point of where the words didn't make sense to me anymore…I couldn't get though it because I would just see all of these things I needed to change or fix"

The even split between participants who experienced hyperfocus as a boon to their academic functioning and those who experienced as a hindrance suggests that the trait is likely neither solely advantageous nor solely disadvantageous in the academic context.

Theme 1D: Procrastination

Half of the participants reported that they habitually procrastinated on academic tasks. Both Participant #3 and Participant #4 shared about their proclivity to procrastinate when deadlines felt far away. Participant #3 admitted to needing a fast-approaching deadline to start working on an assignment:

> "I am a hot mess procrastinator. If I don't have a deadline, it doesn't exist in my brain. I would wait until the day before…to start knocking things out and then the pressure of the anxiety would make me do it, and I would do it, and I would get it done, and I would get decent grades"

Participant #4 spoke with disbelief and exasperation about the extent of her procrastination: "If there's a window to procrastinate, I will do it. I've been trying to write a two page paper for the last five days…like, it's not hard!" Although neither Participant #3's nor Participant #4's procrastination appeared to be linked to perfectionism, Participant #6 acknowledged that her procrastination was largely due to her desire to submit sterling work to her academic advisor:

> "I would get to the point where I knew that I wouldn't meet a deadline that she set, or I was procrastinating on something, or I was sitting on something because I wanted it to be perfect before I showed it to her"

Not only did Participant #6's procrastination have a negative psychological impact: "just the overwhelm and the procrastination, and the…I don't know…I picture my brain a lot of times like a ball of chords," it also had a negative impact on her relationship with her advisor: "she was getting increasingly frustrated with me." Several other participants also noted that their procrastination behaviors tended to either complicate or negatively impact their relationships.

Theme 1E: Difficulties with focus

Half of the participants shared about having difficulty focusing. Participants gave multiple examples of how their inability to focus negatively impacted their academic functioning and either caused or exacerbated negative thinking and emotion. For Participant #4, her problems with focus in school became apparent early in her educational career:

> "I did get in trouble a lot when I was in elementary school and middle school for distracting my peers…when I look back at comments from my teachers, they'll say, she's a smart kid…but she often is chatting with friends too much. I did get sent home a few times for things like that"

Participant #4 shared how her difficulties focusing continue to negatively impact her academic functioning: "I skip words when I write, and I'll read through it and I don't see them. I'll mix things around." Participant #5 also spoke about her experience getting distracted in graduate school:

> "I would get so distracted by anything and everything and I'd think like, oh, let me put this book down for a moment, go for a walk around my place for a little bit, [and then] come back. And then walking around would turn into like, well, actually I'm kind of hungry. Let me maybe make something…and then, okay, well, hang on…the dishes are dirty. Let me clean the dishes. And it would be hours until I came back to the textbook"

When her graduate school courses moved in-person to on Zoom, Participant #8 found it increasingly difficult to regulate her attention:

> "There have definitely been a few classes where I've definitely turned off my screen, was cooking lunch and washing dishes and had laundry going. And I know that as much as I'd like to think I'm absorbing information while multitasking, I know that I'm not"

The experience of having difficulty staying focused in a virtual learning environment was endorsed by several other participants as well.

RQ #2: How do female graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology?

Research Question [RQ]	Group Experiential Theme [GET]	Themes
RQ2: How do female graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology?	**GET #2:** Utilizing self-care strategies	• Multifaceted approach to self-care • ADHD medication • Staying organized • Working with a psychotherapist

One group experiential theme [GET] was interpreted in relation to how female graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology: Utilizing self-care strategies. This GET was derived from four individual themes: multifaceted approach to self-care, ADHD medication, staying organized, and working with a psychotherapist.

GET #2: Utilizing self-care strategies

Theme 2A: Multifaceted approach to self-care

Half of the participants discussed the importance of maintaining an arsenal of strategies for taking care of themselves and managing their ADHD symptomatology. For these

participants, self-care strategies ran the gamut from seeking out academic accommodations, to making their own accommodations, to taking care of their physical needs, to knowing what to resort to during times of stress. Participant #6's graduate school research on neurodiverse populations allowed her to feel comfortable directly asking her teachers for accommodations; specifically, permission to knit in class: "knitting during class actually helps me focus better and listen more." In addition to attending sound healing sessions and having an emotional support animal, Participant #1 notified her graduate school program's academic disability office about her ADHD diagnosis so that she could qualify for academic accommodations. Though Participant #1 hasn't used her academic accommodations for every assignment, she's willing to use them when she feels it's appropriate:

> "If I need to ask for an extension, I will on the basis of how I'm doing. If I have had a period of time where I'm not able to focus, I'm not afraid to approach and say, look, I'm struggling. I need a little extra time"

For Participant #2, in addition to deriving benefit from taking study breaks during long study sessions: "graduate school can be super intense…especially when you have ADHD, I think breaks are really important," taking care of her body has been critical to maintaining her mental wellness: "good sleep is really important…abstaining from alcohol is helpful…and then exercise, cardio exercise. Just [being] outdoors, honestly, like being outside." When especially stressed during graduate school, Participant #8 has found that a concerted effort to add structure to her life has helped her cope with disorganization:

> "I've had success in creating structure when I'm really floundering, when I'm really, really flailing and super nervous system activated…I have a big giant post-it where I'll just throw everything in my brain onto the post-it and then I'll organize that way"

Despite variance in the strategies participants used when coping with ADHD symptomatology and concomitant stress, all endorsed the utility of possessing a variety of coping strategies.

Theme 2B: ADHD medication

Half of the participants shared about the benefits of using psychostimulant medication in accordance with their prescribing physician's prescription orders. Although all four participants noticed improvements in their academic functioning, some participants noticed additional benefits; namely: decreased anxiety, improved social functioning, and improved occupational functioning. The overarching benefit participants derived from their ADHD medication was improved focus. To illustrate the benefits of her psychostimulant medication, Participant #2 compared her functioning before going on medication to her level of functioning since she'd started taking it:

> "I can get a lot of things done without medication, but I'll get like thirty-five things fifteen percent of the way done…and so the medication…calms down that part of my brain that is constantly thinking of all the other things I have to do and all the other things going on…and it kind of…helps that part die down so I can stay focused on one thing at a time"

For Participant #3, the benefits of taking psychostimulant medication were both quickly and obviously noticeable while she was at work and while she was in school:

> "So, I took it [ADHD medication] and everything got better. I was able to attend to my classes at night. I was able to work at my job and everything started going smoothly again. I could sit down and do a paper and not just feel so horribly overwhelmed"

Also speaking to the benefits of psychostimulant medication, Participant #6 described her experience taking Adderall: "I got my Adderall prescription and it just instantly worked…the

next day I took it and I just felt really calm and still…and I fidget a lot, and I just wasn't fidgeting…I was zoned in." Also endorsing the social benefits of her ADHD medication, Participant #4 shared: "it helps me stay more focused on people that I'm talking to. In social situations, I'll have a hard time just sticking with one conversation and one person…I hear all the different conversations that are happening around me." Despite variation in how participants benefitted from psychostimulant medication, benefitting in one or multiple ways as a consequence of taking psychostimulant medication was endorsed unanimously amongst participants taking medication for their ADHD symptoms.

Theme 2C: Staying organized

Half of the participants spoke to the importance of staying organized while in graduate school. As a small business owner and mother to young children, Participant #1's life obligations outside of graduate school significantly curtail her study time. While discussing the importance of maximizing her study time, Participant #1 spoke to the importance of ensuring that her study environment remains free from distracting stimuli:

> "I can juggle work and the kids, and if I've got the kids, I can still find some time to study. I'll just put my headphones on or whatever…I need to sensory deprive myself, so I'll put myself in my room and get a movie for the kids to watch…just give myself an hour and be like, 'I can get a solid hour under these environmental circumstances'"

Participant #3, also a mother to small children, described the importance of blocking-out distracting auditory stimuli:

> "They [Participant #3's kids] are inherently noisy…and so, for someone who has an auditory sensitivity…[it's] not great for doing work. So, I found that if I play brown noise

> in headphones or something, it's soothing enough to where it drowns out everything, but no so much of a noise that it bothers me"

Rather than highlighting their study environment, both Participant #7 and Participant #8 spoke to the import of utilizing systems of organization intended to augment their academic functioning (e.g., tracking assignment/project due dates, improving time management). Extolling the benefits of utilizing daily planners and timers, Participant #7 shared:

> "Planners are my thing. I structure my day a lot. That helps immensely just to keep track of everything and also scheduling time to work on things. Also, timers…[when] my essay is done, I'll give myself an hour to review it and then I'll just turn it in"

Even though she's had previous positive experiences with structure, Participant #8 acknowledged that the freedom-limiting aspects of structure have felt oppressive and led to mixed feelings: "I am really resistant to structure, but I really need it. I crave structure, but I hate structure…I have this tension of opposites inside of me." Despite her ambivalence, Participant #8 accepts that an organized, structure existence suits her interests in the long-term: "through therapy and coaching and my own internal work, I'm like, 'oh, okay….I'm getting a little crazy. Maybe it's time to think about a morning routine again'"

Theme 2D: Working with a psychotherapist

Half of the participants spoke about the mental health benefits they've derived from working with a psychotherapist since being in graduate school. Many life issues and stressors motivate individuals to seek mental health services; both Participant #8 and Participant #6 spoke about their experiences ruminating and worrying about academic underperformance, how these concerns have been central to their respective psychotherapy treatments, and the importance of working on developing self-compassion in psychotherapy : "There's a little bit of…I am

certainly not living up to my potential here…it's an old feeling. Luckily, I have a great therapist and we've talked about [how] there's times in life when 80% is good enough" (Participant #8)

> "Before my ADHD diagnosis, I had a diagnosis of generalized anxiety and social anxiety…for years, I had really bad anxiety with schoolwork…a lot of performance anxiety, and I've always been very stressed about meeting deadlines and disappointing people" (Participant #6)
>
> "I did a lot of work with just self-compassion. And that was a lot of just literally another person just going like, 'I noticed this good thing about you. You are very kind.'" And just teaching me to do things like writing 'I am' statements, and things like that. Just really lifting myself up, noticing my strengths and things like that" (Participant #6)

Whereas the concerns harbored by Participant #8 and Participant #6 revolved around meeting personal or objective (i.e., school-based) academic performance standards, psychotherapy has been a medium through which Participant #4 has addressed her procrastination behavior as well as her difficulty staying focused on and completing academic tasks: "I see a therapist once a week…she's been trying a lot of exercises with me to exercise my push-through muscles essentially, where I force myself to sit down and just push through." Despite having derived some value from working with her therapist on school-related issues, Participant #4 admitted that her ability to push-through her ADHD symptomatology has only been moderately beneficial: "It works when I'm not in a high stress moment of my life. It works for fair-weather problems."

RQ #3: In what ways do female graduate students with ADHD experience themselves as resilient?

Research Question [RQ]	Group Experiential Themes [GETs]	Themes

RQ3: In what ways do female graduate students with ADHD experience themselves as resilient?	**GET #3:** Persevering through hardship	• Surviving to thriving • Early-in-life subjection to and recovery from adversity • Willingness and ability to adapt • Surprised by her own resilience • Heightened focus, energy, and motivation in challenging situations • Persevering through failure • Greater resilience than her peers when coping with ADHD symptomatology
RQ3: In what ways do female graduate students with ADHD experience themselves as resilient?	**GET #4:** Connecting to internal sources of strength	• 'Never quit' attitude • Learning to give herself grace • Deriving self-confidence from seeking additional support • Confidence in ability to activate resilience on-demand • Conceptualizing creativity as a problem-solving tool

Two group experiential themes [GETs] were interpreted in relation to how female graduate students with ADHD experience themselves as resilient: (1) Persevering through hardship and (2) Connecting to internal sources of strength. The first GET was derived from the following seven themes: surviving to thriving, early-in-life subjection to and recovery from adversity, ability and willingness to adapt, surprised by her own resilience, heightened focus, energy, and motivation in challenging situations, persevering through failure, and greater resilience than her peers when coping with ADHD symptomatology. The second GET was derived from the following five themes: 'never quit' attitude, learning to give herself grace, deriving self-confidence from seeking additional support, confidence in ability to activate resilience on-demand, and conceptualizing creativity as a useful problem-solving tool.

GET #3: Persevering though hardship

Theme 3A: [Participant #1] Surviving to thriving

Four subthemes emerged out of Participant #1's descriptions of her experiences persevering through hardship: (1) moving to a new country, (2) going through divorce, (3) being a single parent, and (4) running a small business. Before starting graduate school, Participant #1 moved to America with her husband and three young children. Five years after moving to a new country, Participant #1 and her husband divorced:

> "Just moving over here is a massive change in your life. Just adapting to everything…the whole culture. When I moved here, I was married and then I got divorced…that was a big thing because that was not really in the plans"

While weathering the hardships of divorce, single motherhood, and a lack of familial support, Participant #1 did not succumb to feelings of self-pity; instead, she recognized the necessity of taking care of herself and mapping out a tenable future:

> "After getting divorced with three small kids in a completely different country, with no family here, I'd really just been having the children and being a stay-at-home mom, so that was a massive thing to overcome and to just pick yourself up for them and think, wow, I'm here now and I've got to map my life out"

The success Participant #1 has achieved since immigrating to America is impressive. Despite recognizing her success persevering through a range of trials and tribulations, Participant #1 acknowledged feelings of amazement about what she's withstood and achieved: "When I think about what I've achieved since I've been divorced, where I was then and where I am now, I'm amazed at myself when I think about the hard work it took to get here."

Theme 3B: [Participant #3] Early-in-life subjection to and recovery from adversity & Willingness and ability to adapt

Two subthemes emerged out of Participant #3's descriptions of her experiences persevering through hardship: (1) early-in-life subjection to and recovery from adversity and (2) ability and willingness to adapt. Despite having been exposed to trauma during her teenage years: "I had some personal trauma, during my teenage years that I had to bounce back from, make sense of, and kind of cope with…some other symptomologies of PTSD and stuff like that," Participant #3 has consistently overcome adversity as a student and in her life outside of school. Due to the adverse impact of her ADHD symptomatology on her academic functioning ("your whole life you're learning to adapt and make it in a way that other people around you aren't having to do"), Participant #3 stressed the importance of creatively developing and implementing strategies to counteract the aspects of her ADHD symptomatology that hinder academic functioning: "you kind of have to think outside the box and you have to come up with solutions and you have to do things, work twice as hard to get the same end result." Participant #3's willingness and ability to remain flexible in the face adversity was further exemplified when she discontinued her ADHD medication when she was either pregnant or breastfeeding:

> "My first year of graduate school, I had a newborn. Because I had gotten pregnant, I had to get off of my medication. And so, the first two years of graduate school I was unmedicated. Also, I did my last two semesters of undergrad unmedicated…because I had gotten pregnant"

To explain her success navigating various forms of adversity, Participant #3 stressed the import of prioritizing her life and implementing tried and true coping strategies:

> "When I was dealing with ADHD and postpartum depression and graduate school, I had to be even more intentional about what I did to cope…making sure I made time to exercise…put in my calendar that I was going to take a day to do schoolwork…and prioritizing the things that I had to prioritize."

Theme 3C: [Participant #4] Surprised by her own resilience & Heightened focus, energy, and motivation in challenging situations

Two subthemes emerged out of Participant #4's descriptions of her experiences persevering through hardship: (1) surprised by her own resilience and (2) heightened focus, energy, and motivation in challenging situations. While acknowledging herself as a resilient individual: "I find in those situations where it seems like a lot of other people are having a really difficult time or complaining a lot, I generally feel like things are not as bad as they seem to be experiencing," Participant #4 also confessed that she remained somewhat puzzled by her own resilience:

> "I think I have experienced myself being resilient and was really surprised. I'm just thinking of things that have happened that I didn't think I would deal with well…and just kind of having the realization, we can get used to a lot of things"

To make sense of her ability to weather or bounce back from challenging situations, Participant #4 referenced her love of novelty:

> "I think I do really well with novelty. I think I get novelty and hardship intertwined in my mind in a weird way sometimes, and it brings about adrenaline…and all of those things have been really helpful for me to…sort of thrive off of hard times"

Participant #4's capacity to thrive amidst chaos and uncertainty was especially apparent during the early stages of the COVID-19 pandemic. While Participant #4 felt fortunate to be in graduate

school: “it felt good to channel some energy into something,” she noticed that many of her graduate school classmates struggled to cope with the adversity engendered by the pandemic: “it felt like all my classmates were talking a lot about how awful and impossible it was to be trying to do school when everything was so chaotic and nothing was happening the way it was supposed to.” Despite her ability to leverage adrenaline to respond resiliently to acute stressors, Participant #4 conceded that stressors taxing her attentional resources for prolonged periods of time remain a point of difficulty: “I do know that it’s the slow hard things that I don’t do well with…those things that are not acute that you need to put a lot of homework into.”

Theme 3D: [Participant #5] Persevering through failure & Greater resilience than her peers when coping with ADHD symptomatology

Two subthemes emerged out of Participant #5’s descriptions of her experiences persevering through hardship: (1) persevering through failure and (2) greater resilience than her peers when coping with ADHD symptomatology. Despite having felt a sense of relief upon being diagnosed with ADHD last year, receiving her diagnosis felt bittersweet. Though the diagnosis reduced her anxiety and confusion, the angst and trauma incurred as a consequence of struggling with unwieldy symptoms was not expunged. The amount of time it took Participant #5 to be diagnosed with ADHD continues to be a source of regret due to her belief that much of her anguish and despair would have been avoided had she been diagnosed earlier:

> “Again, I’m 30 now. I was diagnosed when I was 29. And so, because of the assumptions of what ADHD looks like, particularly when it’s focused in young boys and men, and since I didn’t look like that, I just had to push through and keep going and fail a lot of times until I figured out how to just live with it and then continue completing all the responsibilities that I had”

Despite these hardships, Participant #5 was open to acknowledging the possibility of silver-linings. Whereas some individuals are left feeling weary or defeated following exposure to adversity, Participant #5 believes that her ability to work-through hardship and bounce back from failure have been instrumental to developing a capacity for resilience more robust than the majority of her peers with ADHD:

> "I have peers, even coworkers of my age…a year younger, where they have ADHD, and their work really suffers. And there are moments where it's like, well, we're both living with this, but I'm doing what I have to do because I know it needs to get done and I'm pushing through, utilizing my coping skills"

GET #4: Connecting to internal sources of strength

Theme 4A: [Participant #2] 'Never quit' attitude

One subtheme emerged out of Participant #2's descriptions of her experiences connecting to internal sources of strength: (1) 'never quit' attitude. Though it has helped her overcome obstacles and achieve success, Participant #2's 'never quit' attitude has also pushed her to pursue tasks to the detriment of her mental health. Despite continuous exposure to adversity: "I've gone through a lot of ups and downs in my life, and it's been very, very challenging," Participant #2 has never allowed herself to give up: "And even when I have been really, really struggling, I still just keep going. Even if I don't want to, even if there's a voice in my head: 'quit school,' it's like I can't not just keep pushing forward." When asked whether she's always been so resilient, Participant #2 conceded that stubbornness might be a better word to describe her behavior: "when I was younger, it was almost a fault because I kept pushing myself to move forward in ways that were maybe bad for me." As she elaborated, Participant #2 hypothesized that her

inability to either give up or give in may stem from previous struggles with ADHD symptomatology in the academic context:

> "With ADHD, it's a good example of I'm not doing well in school, and I'm going to keep trying to do this thing that's not working for me, because this is what I'm supposed to be doing. And it would just continue to make me feel worse and worse about myself"

To get help with the aspects of her ADHD symptomatology that drive her obsessiveness, Participant #2 shared her recent success contacting her school's academic support services: "with this job in combination with school, my ADHD symptoms have gotten a lot worse and a lot harder to manage…so, I recently contacted the disability support services."

Theme 4B: [Participant #6] Learning to give herself grace

One subtheme emerged out of Participant #6's descriptions of her experiences connecting to internal sources of strength: (1) learning to give herself grace. This subtheme was derived from Participant #6's experiences overcoming academic adversity as an undergrad and her ability to cultivate self-compassion as a graduate student. While taking organic chemistry during her sophomore year of college, Participant #6 found herself struggling academically for the first time in her life. Realizing that her coping mechanisms weren't working and negative self-talk was damaging her mental health, Participant #6 started treatment with a psychotherapist who helped her cultivate a kinder, more compassionate internal dialogue:

> "I started therapy that year and I did a lot of work with just self-compassion…a lot of just literally another person going: 'I noticed this good thing about you. You're very kind.' And just teaching me to do things like writing 'I am' statements, and things like that. Just really lifting myself up, noticing my strengths"

The benefits of being kinder to herself have manifested numerous times since Participant #6 started graduate school. Recently, when a graduate school professor requested that she resubmit a paper, Participant #6 proceeded with equanimity by avoiding the pitfall of viewing her professor's request as a judgment against her character or her value as a student:

> "When I was struggling with that paper resubmission, I never once though, 'Oh, I'm a bad student…or, I never thought, 'I'm a procrastinator.' I very much was sitting here like, 'I've never done this before. I'm not getting a lot of guidance. And, it's okay if I'm struggling this time'"

Likewise, through an increased commitment to self-compassion, informing others about her struggles feels increasingly permissible. The positive effects have been made manifest in her relationship with academic advisor: "With my advisor, since I was diagnosed, we have switched around how we talk to each other. It's much more fluid now. And I think it's working a lot better for me." Buoyed by her commitment to self-compassion and an improved willingness to be honest with herself and others about her struggles, Participant #6's confidence in her ability to cope with adversity has never been higher.

Theme 4C: [Participant #7] Deriving self-confidence from seeking additional support

One subtheme emerged out of Participant #7's descriptions of her experiences connecting to internal sources of strength: (1) deriving self-confidence from seeking additional support. This subtheme was derived from her experiences persevering through academic adversity and feeling supported by her professors. Though she was accepted into an academically rigorous university as an undergrad, Participant #7's insecurity about her status as a student with ADHD left her feeling like she didn't belong at the school that had admitted her: "I got into this competitive school, I [felt that I] must have been faking it." Rather than deny or ignore her insecurity,

Participant #7 contacted her university's Disability Services Office and was allotted extra time during exams: "I had extra time as an accommodation, but I barely used it. If I did, it was an extra five minutes, but it was just the fact of not having a clock stare down on me."

Myriad advantages appear to have followed from her decision to seek out and use academic accommodations. For example, upon realizing that she didn't always require extra time and rarely used all of it when she used it, Participant #7 found that her confidence in her academic abilities improved to an extent where attending graduate school felt like an attainable goal:

> "To kind of realize like, no, I can do this, I have earned my spot here, was a night and day difference…like that boosted my confidence, that made me feel like I could go for difficult research positions. I could apply to grad school even if it's competitive"

In addition to their positive impact on her academic performance, Participant #7 found that her academic accommodations also had a positive psychological impact:

> "Now, when I'm facing difficult assignments, I trust in my abilities even if it does feel like I'm grinding it out and it is difficult. I know that I can finish an assignment and not matter what, it will at least be okay"

Another behavior that has had a positive impact on Participant #7's self-confidence as a student has been her willingness to speak frankly with her professors when seeking clarity about assignments or alerting them when signs of academic burnout are starting to emerge:

> "I know if I really need to talk to a professor about an assignment, I've been through that process before. And so, I can use my professors as a resource in those moments. I've also had those difficult conversations with professors where I've told them I'm getting close to burnout, I'm really struggling. One of my professors told me that you have to pick

> your battles. It's okay to drop the ball on one assignment, then you can do well on another. And that's really shaped how I've seen grad school"

Theme 4D: [Participant #8] Confidence in ability to activate resilience on-demand & Conceptualizing creativity as a problem-solving tool

Two subthemes emerged out of Participant #8's descriptions of her experiences connecting to internal sources of strength: (1) confidence in ability to activate resilience on-demand and (2) conceptualizing creativity as a problem-solving tool. Whereas many individuals are prone to find themselves worn-down and defeated by adversity, Participant #8 has found that adverse circumstances and situations have strengthened her resolve and confidence in her ability to weather challenging situations: "I've never not risen to an occasion that I've been thrown into. I've always figured it out, sometimes not gracefully…there's a quality of resourcefulness that I feel…I can always count on." To account for her ability to persevere and solve problems, Participant #8 credited her growth-oriented mindset: "I keep growing and learning…and so, yeah, I feel it's an aspect of resilience…and yeah, if something sucks, I figure out a way to change it." In addition to her growth-oriented mindset, Participant #8 connected her resilience to her willingness to leverage her creativity to find solutions or render the mundane less tedious:

> "I think my brain works completely differently than other people and I think [it's] an aspect of my left-handedness. I'm not a linear thinker. When I see a conundrum…I never get stuck in that certain way of doing things like a lot of people. I don't have a lot of limits or boundaries on my thinking, which I think gives me a lot of flexibility and ties into resilience"

In the same way left-handedness in a right-handed world has advantages and disadvantages, neurodivergence in a neurotypical world has its own unique set of tradeoffs. Rather than construe

her left-handedness or ADHD symptomatology as handicaps, Participant #8 views her idiosyncrasies as attributes that can be leveraged advantageously.

RQ4: How does resilience impact the ways female graduate students with ADHD cope with the academic challenges and stressors engendered by ADHD symptomatology?

Research Question [RQ]	Group Experiential Theme [GET]	Themes
RQ4: How does resilience impact the ways female graduate students with ADHD cope with the academic challenges and stressors engendered by ADHD symptomatology?	**GET #5:** Implementing strategies to improve academic functioning and psychological wellbeing	• Making accommodations or seeking out help • Time management • Leveraging atypical attentional regulation • Embracing a positive mindset

One group experiential theme [GET] was interpreted in relation to how resilience impacts the ways female graduate students with ADHD cope with the academic challenges and stressors engendered by ADHD symptomatology: Implementing strategies to improve academic functioning and psychological wellbeing. This GET was derived from four individual themes: making accommodations or seeking out help, time management, leveraging atypical attentional regulation, and embracing a positive mindset.

GET #5: Implementing strategies to improve academic functioning and psychological wellbeing

Theme 5A: Making accommodations or seeking out help

Seven of the eight participants testified to experiencing improved academic or psychological functioning as a consequence of making accommodations or seeking-out help. For both Participant #6 and Participant #7, remaining open to seeking-out help from trusted individuals (e.g., professors, therapists) has been critical to each individual's ability to overcome adversity. After summoning the courage to inform one of her professors about how perfectionism was hindering her ability to complete assignments on-time: "I would read over it again and

again…to the point where the words didn't make sense to me anymore, I'm just thinking, I need to throw it away and restart just because I would just see all of these things I needed to change or fix," Participant #7 ended up receiving advice she continues to abide by: "the professor said, 'you *have to* set a timer and then put it away…just send it in.' And that's been really, really helpful and has made me a lot less anxious [when] turning in every assignment." For Participant #6, a discussion with her therapist about the potential upsides of treating her ADHD symptoms pharmacologically led her to initiate a conversation with her doctor about trying medication:

> "All it took was my therapist being like, 'yeah, actually, the things that you understand about ADHD are just the tip of the iceberg. It's a lot of emotional interplays and anxiety.' And her big selling point was like, 'If you do get diagnosed, a lot of ADHD meds act as anti-anxiety things.' And I was like, 'oh shit, yeah, I have to try that out!'"

Despite mixed feelings about the constraints of structure, Participant #8 remains open to making accommodations for herself when her disorganization goes from being ego-syntonic to ego-dystonic: "I go back to create the structure. I will get really, really granular for a week. Every day at 7:00am, I'm going to meditate for 10 minutes and then I'll have coffee for 10 minutes after that." In addition to engendering feelings of stability, security and containment, Participant #8 has noticed that a structured lifestyle attenuates her anxiety and improves her self-esteem: "There's some sort of relief in knowing that things are going to happen. And then also a little bit of a win in the morning to set my day off."

Theme 5B: Time management

Half of the participants observed a relationship between efficient time management and improved academic functioning/psychological wellbeing. As a business owner, graduate student, and single mother, Participant #1's need to manage her time efficiently has been a long-standing

necessity: “I feel like my time management is pretty good, and I feel like I’m a pretty good planner. I’m quite good at it…it’s like project management, really, which I used to do and was pretty good at.” Rather than view her ADHD symptomatology as a functional hindrance, Participant #1 views the uniqueness of her attention regulation as something that’s aided her academic functioning in graduate school:

> “I guess with ADHD, because you can’t let yourself focus on one thing, you just have to always be doing…I have to have a million projects up on the go all the time…so, I’m able to multitask in school really well”

Though time management is typically conceptualized as a skill that helps individuals maximize their productivity within a narrow timeframe, adroit time-managers are also adept at ceasing engagement in activities that lead to misuse of time and energy. For Participant #7, knowing when to work on a project, when to step away from it, and the ability to tell the difference, has improved her work efficiency and kept feelings of academic burnout at bay:

> “Giving myself permission to be frustrated and to know it’s not a weakness…and to say, I’m not being productive right now with this assignment, I’m giving myself permission to walk away from it and then come back at a later date...it’s okay if I’m not checking it off my to-do list right now. If I need to sleep and look at it [later] with fresh eyes, that’s okay”

In addition to these accounts, several other participants stressed the criticality of having and abiding by a scheduling system (e.g., weekly planners) so that work responsibilities can be tracked and prioritized and leisure time can be maximized.

Theme 5C: Leveraging atypical attentional regulation

Seven of the eight participants spoke about their experiences leveraging atypical attention regulation to the benefit of their academic performance. After finding a podcast on strategies for coping with ADHD symptomatology, Participant #3 realized that she could leverage the atypicality of her attention regulation to strategic advantage:

> "Listening to that podcast early on in my graduate school career completely changed the way I viewed my ADD…how I could use it [hyperfocus] to my advantage. And I found that…I could hyper-focus for two, three, four hours as long as I had The Office in the background. It helped me because I knew that I could knock out an eight page paper in one day if I really wanted to"

While reflecting on the reasons for her academic success in graduate school, Participant #6 also endorsed the academic advantages associated with hyperfocus:

> "I think that I have been so successful because of my ability to hyperfocus. And, I don't know, drive myself…and know what I need in the moment. I definitely think that hyperfocus is something that people don't normally experience. I'm able to just…especially on Adderall, work for four hours straight"

In addition to the ability to sustain focus for long periods of time, both Participant #2 and Participant #4 noted the relationship between hyperfocus and enhanced diligence while working on school assignments:

> "When I do school assignments, I always have triple the amount of references because I'm always going off in different directions and collecting more data" (Participant #2)
>
> "When I hit like a hyperfocus moment and I'm doing a research project, I over-research like crazy and I end up coming up with a much broader view of something than if I

> wasn't experiencing that. It has sucked out a lot of time…my instructors…are often very impressed with the breadth of research" (Participant #4)

Though other participants endorsed the academic advantages of hyperfocus, those who hyperfocus appear to walk a fine line between meticulousness and obsessiveness. Hence, when heightened levels of conscientiousness cross the line into obsessiveness or perfectionism, the academic advantages derived from hyperfocus may be nullified.

Theme 5D: Embracing a positive mindset

Five of the eight participants spoke to the myriad positive consequences stemming from maintaining focus, equanimity, and optimism in the face of adversity. Although ADHD symptomatology presents its own set of challenges, Participant #8 described finding solace after reminding herself of the transience of graduate-school-related stress and her goal to become a licensed mental healthcare professional:

> "I've lived through far more stressful situations in my life. I feel really lucky to have the freedom to be in school and I know it's temporary. I know that it's going to pass and I know that I can do anything for a period of time. It did get pretty dicey there for a while. Just my heart rate felt elevated for three months, like all of the time. But yeah, I think I really see the light at the end of the tunnel, even though it's three years away before I get licensed."

Rather than view her ADHD symptomatology as a hindrance, Participant #3 views the quirky, idiosyncratic workings of her mind favorably, spawning creativity and insightfulness:

> "I think you can benefit from it [ADHD] in that you will have a different take than everybody else in the room…if you look among entertainers and artists, a lot of them have ADD. People with ADD tend to also be a little moodier, a little more empathetic, a

> little more in touch with feelings, which can help you in a graduate program like counseling. I think I've made it into a benefit now, sometimes it's not, but I think that I've found a way for it to be beneficial to me"

To avoid succumbing to disconnection and disengagement during lectures that fail to capture her attention, Participant #7 found that active notetaking staved off boredom and kept her engaged in the learning process:

> "I've created a lot of coping techniques of writing down my questions in my notes and then writing really detailed notes. Trying to connect the dots to other lectures. That creates really interesting questions and keeps me engaged with the materials in a way that I feel like some people have a difficult time doing"

Other participants' experiences related to this theme also aligned with the notion that deciding to embrace a positive mindset was both protective and promotive – that is, protective against negative intrapsychic states (e.g., neuroticism, dissociation) and promotive of behaviors that facilitate academic functioning and psychological wellbeing (e.g., problem-solving, perseverance, self-soothing, active engagement).

CHAPTER V: DISCUSSION

The overarching goal of this study was to understand how ADHD symptomatology impacted the academic functioning of eight female graduate students diagnosed with ADHD (Research Question #1). This study also sought to understand how female graduate students with ADHD coped with the academically deleterious nature of ADHD symptoms (Research Question #2). Additionally, this study focused on resilience; specifically, how female graduate students with ADHD experienced themselves as resilient (Research Question #3), and how their resilience impacted the ways they coped with the academic challenges and stressors engendered by ADHD symptomatology (Research Question #4). This study's findings emerged through a multistep data analysis. First, participants were asked a series of questions through a semi-structured interview protocol designed to provide insight into the aforementioned research questions. Following transcription of each participant's audio recorded interview, interview transcripts underwent notation and coding processes to identify themes relevant to the study's four research questions. Finally, themes emerging within individual interviews were compared and contrasted against themes from other participants' interview transcripts, culminating in the identification of superordinate themes called Group Experiential Themes (GETs). This study's data analysis yielded a total of five GETs: research questions #1, #2, and #4 each yielded a single corresponding GET, and research question #3 yielded two GETs.

In addition to discussing how each GET fits within the context of the extant literature concerning the impact of ADHD symptomatology on academic functioning, coping with ADHD symptomatology, and resilience, this chapter summarizes the clinical implications of this study's findings, discusses this study's limitations, and provides recommendations for future research.

Summary of findings

Research Question #1: How do female graduate students with ADHD experience the impact of their ADHD symptomatology on their academic functioning?

The GET interpreted in relation to Research Question #1 was: Hindrance to academic functioning and academic success. This GET was derived from the following themes: impaired cognitive functioning, mental health struggles due to ADHD-related frustration, hyperfocus, difficulties with focus, and procrastination. In this study, study participants believed that their academic functioning had, in one way or another, been compromised as a consequence of their ADHD symptoms. Though participants unanimously identified ADHD symptoms as a hindrance to academic functioning, this study found variation in how participants' academic functioning was negatively impacted by their ADHD symptoms. Whereas some participants' academic struggles were due to impairments in cognitive functioning (e.g., inattention, hyperfocus), other participants' academic dysfunction appeared more directly tied to emotional dysregulation (e.g., anxiety, depression, anger/frustration) or behaviors borne out of emotional dysregulation (e.g., impulsivity, procrastination, avoidance, perfectionism). Although ADHD symptomatology is correlated with deficits in academic, social and occupational functioning (Barkley, 2014; Wahlstedt et al., 2009), emotional dysregulation, which frequently cooccurs alongside ADHD symptomatology, has been observed (e.g., Corbisiero et al., 2013; Kooji et al., 2019; Shaw-Zirt et al., 2005) as a contributing factor to the aforementioned functional deficits. Multiple theorists (e.g., Biederman et al., 1998; Lee et al., 2008; Safren et al., 2004; Slomkowski et al., 1995, Shaw-Zirt et al., 2005) have theorized that emotional dysregulation, by virtue of its tendency to engender or exacerbate deficits in social skills, leads to deficits in self-esteem and decreased motivation and ability to function socially, academically, and occupationally.

The fact that participants' academic dysfunction often manifested idiosyncratically is unsurprising given individual differences (e.g., ADHD symptom count, ADHD symptom severity, coping skills/abilities, protective and promotive factors) between participants. Nevertheless, despite differences in how participants experienced academic dysfunction, the experience of ADHD symptoms as a hindrance to academic functioning was universal. This finding is congruent with previous research (e.g., Advokat et al., 2010; Heiligenstein et al., 1999; Murphy et al., 2002; Pope, 2010; Schwanz et al., 2007; Wolf et al., 2009; Wolf, 2001) identifying ADHD symptomatology as an academic risk factor. Though the academic struggles of this study's participants were somewhat predictable given previous findings (e.g., Bental & Tirosh, 2007; DuPaul et al., 2013; Fergusson & Horwood, 1995; McGrath et al., 2011) identifying ADHD as an academic risk factor for students in higher education (i.e., college students), this study's participants' skillful navigation of myriad cognitive deficits and emotional challenges suggests that college students with ADHD are not an exact proxy for graduate students with ADHD in terms of the nature and severity of their academic struggles or their ability to cope with them.

Research Question #2: How do female graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology?

The GET interpreted in relation to Research Question #2 was: Utilizing self-care strategies. This GET was derived from the following themes: multifaceted approach to self-care, ADHD medication, staying organized, and working with a psychotherapist. The vast majority of participants in this study utilized a variety of strategies, techniques, and tools to cope with the academically deleterious aspects of ADHD symptomatology. Although some participants' self-care strategies fell strictly within the bounds of a singular theme (e.g., staying organized), study

participants' self-care strategies also spanned multiple themes. For example, whereas some study participants reported using organizational strategies (e.g., utilizing daily planners, setting timers, modifying their work/study environment) in addition to working with a psychotherapist, others reported using psychostimulant medication in addition to augmenting their physical wellness through health-promoting behaviors (e.g., engaging in regular physical exercise, maintaining a healthy diet, abstaining from alcohol).

Six of the eight study participants endorsed using psychostimulant medication to cope with the academically deleterious aspects of ADHD symptomatology. Among the many tools used to treat ADHD symptomatology, psychostimulant medication is one of the most well-researched and efficacious treatment options (Bolea-Almañac et al., 2014; Cunill et al., 2016; Gamo et al, 2010; Katzman et al., 2017). Despite the risks of medication misuse and abuse, psychostimulant medication remains one of the most recommended options in the treatment of ADHD symptomatology (Harstad et al., 2014; Chan et al., 2016). Study participants' use of psychostimulant medication in compliance with doctor's orders likely enhanced or protected the efficaciousness of this self-care strategy.

In addition to psychostimulant medication, study participants coped with their ADHD symptomatology by adopting and implementing behaviors and routines that helped them stay organized. Since poor organizational habits and abilities have been shown to negatively impact academic functioning (Barnard-Brak & Brak, 2011; Currie et al., 2013; Langberg et al., 2011), study participants' implementation of multiple organizational methods and tools (e.g., daily planners, timers, work/study environment modifications) appeared to contribute to their academic success. In addition to observing functional improvements in college students with ADHD following implementation of a psychostimulant medication regimen, Meaux et al., 2009

found that college students' regular adherence to organizational practices improved their ability to cope with their ADHD symptomatology.

Half of this study's participants spoke about the mental health benefits derived from regular participation in psychotherapeutic treatment. Already at risk of stigmatization due their status as individuals with mental health disorders (Bussing et al., 2011; Hinshaw, 2005; Kooji et al., 2010), study participants' behaviors directly and indirectly linked to their ADHD symptomatology (e.g., inattention, forgetfulness, disorganization, impulsivity, absentmindedness) also increased their risk of experiencing additional interpersonal difficulties and comorbid mental health disorders (Faigel, 1995; Mannuzza et al., 1997; Mannuzza et al., 1993; Murphy & Barkley, 1996). Although study participants' reasons for seeking psychotherapeutic treatment varied, the positive impact study participants derived from psychotherapeutic treatment appeared related to their ability to use psychotherapy to cultivate self-compassion. Since individuals with ADHD frequently harbor negative self-concepts (i.e., negative attitudes and beliefs about the self) due to the perception that some aspect of their identity (e.g., cognitive functioning, emotional regulation, status as an individual with a mental health disorder) is preventing them from meeting their own or others' standards or expectations (Major et al., 2013; Safren et al., 2004), it was unsurprising that study participants benefitted from having their maladaptive attitudes and beliefs replaced with those promoting better reality testing, enhanced agency, and improved self-respect.

Research Question #3: In what ways do female graduate students with ADHD experience themselves as resilient?

The first GET interpreted in relation to Research Question #3 was: Persevering through hardship. This GET was derived from the following themes: surviving to thriving, early-in-life

subjection to and recovery from adversity, ability and willingness to adapt, surprised by her own resilience, heightened focus, energy, and motivation in challenging situations, persevering through failure, and greater resilience than her peers when coping with ADHD symptomatology. Although the experience of being resilient was discussed by all eight study participants, there were notable similarities and differences with respect to the forms (i.e., circumstances and situations) of adversity experienced, participants' feelings about their ability to demonstrate resilience, and the resilience-promoting characterological traits and behaviors participants exhibited when facing adversity.

Despite occasional expressions of bemusement about the adversarial circumstances and situations prompting their resilience, study participants' semi-blasé attitudes about their ability to demonstrate resilience was unexpected. On numerous occasions, study participants sounded unimpressed or mystified by their capacity to respond resiliently:

> "When I think about what I've achieved since I've been divorced, where I was then and where I am now, I'm amazed at myself when I think about the hard work it took to get here" (Participant #1)
>
> "I do find in those situations where it seems like a lot of other people are having a really difficult time or complaining a lot, I generally feel like things are not as bad as they seem to be experiencing" (Participant #4)
>
> "I've never not risen to an occasion that I've been thrown into. I've always figured it out, sometimes not gracefully…there's a quality of resourcefulness that I feel…I can always count on" (Participant #8)

Though it is possible that study participants' emotional and temporal distance from past adversity prompted humble, nonchalant reflections, it is also possible that this study's

participants are both naturally and highly resilient. Conceptualizations of resilience as an innate quality were first postulated by early resilience researchers (e.g., Anthony, 1974; Rutter, 1979; Werner & Smith, 1982) who theorized resilience as an innate, unidimensional characteristic accessible on-demand for those lucky enough to have been endowed with it. However, as research on resilience has evolved and expanded, unidimensional conceptualizations of resilience have been replaced with multivariate conceptualizations that, in addition to accounting for individual attributes, also consider aspects of the individual's early caregiver environment and characteristics of their wider social environment (Luthar et al., 2000). Even if resilience is multivariate, how this study's participants' resilience compares to the general population remains an open question given that none were not subjected to testing procedures capable of quantizing and comparing their resilience to other populations.

Although their resilience was not assessed quantitatively, all eight study participants shared experiences encountering and navigating around at least some form of adversity. Though more than half of this study's participants experienced forms of adversity directly or peripherally related to their ADHD symptomatology (e.g., inattention, difficulty focusing, emotional distress due to academic impairment), many endorsed experiencing adversity unrelated to ADHD (e.g., being a mother in graduate school, being a single mother in graduate school, going to graduate school in a non-native country, discontinuing psychostimulant medication during pregnancy and breastfeeding periods, transitioning from in-person learning to virtual learning during COVID lockdown, deficits in self-compassion, perfectionism, comorbid anxiety and/or depression). In addition to avoiding risk factors associated with a diagnosis of ADHD (e.g., lower educational achievement, increased unemployment or underemployment, problematic personal relationships, less stability of residence, substance abuse disorders, antisocial behavior) (Greenwald-Mayes,

2002), study participants were able to either avoid additional forms of risk or neutralize their negative impact. Resilience does not happen in a vacuum; rather, it necessitates the achievement of a good outcome in spite of serious threats to adaptation or development (Masten, 2001). In addition to being admirable, study participants' ascension to graduate school in spite of real and looming adversity related and unrelated to ADHD symptomatology suggests abnormally high resilience.

The second GET interpreted in relation to Research Question #3 was: Connecting to internal sources of strength. This GET was derived from the following themes: 'never quit' attitude, learning to give herself grace, deriving self-confidence from seeking additional support, confidence in ability to activate resilience on-demand, and conceptualizing creativity as a useful problem-solving tool. To connect to internal sources of strength, study participants connected to previously developed resilience-promoting characterological traits to combat, weather, and/or navigate around adversity. These resilience-promoting characterological traits fell into five categories: persistence, self-compassion, self-confidence, self-efficacy, and creativity. Although prior development of internal sources of strength and the ability to summon them on-demand suggest resilience, study participants' capacity for resilience was also analyzed and interpreted according to the type (i.e., form) of adversity experienced, the severity of the adversarial circumstance(s)/situation(s), the employment (i.e., timing and execution) of the individual's internal sources of strength, and the extent to which the internal sources of strength aided efforts to combat, weather, or navigate around adversity.

Though study participants demonstrated marked similarity in terms of their ability to expeditiously contact and employ internal sources of strength, the type and severity of the risks (i.e., adverse circumstances and situations) encountered varied. There was also variance in the

characterological traits and behaviors (e.g., perseverance, self-compassion, self-confidence, self-efficacy, creativity) study participants demonstrated when facing adversity. Due to a lack of consensus as to how resilience ought to be defined, how it ought to be measured, and whether it ought to be conceptualized as a personal trait or dynamic process between the individual and their environment, what constitutes resilient behavior and how it manifests remain open for debate (Luthar et al., 2000). Although potential risks related and unrelated to ADHD symptomatology were considered, this study focused primarily on participants' direct experiences with adversity and the countermeasures they implemented. After study participants' resilience-promoting behaviors were gleaned, analyzed, and interpreted, they were synthesized as resilience-promoting characterological traits. Although these resilience-promoting characterological traits likely emerged due to a series of dynamic interactions between person-centered and environmental factors, study participants' ability to respond resiliently (i.e., demonstrate positive adaptation within the context of significant adversity) appeared to hinge on their ability to connect to one or more resilience-promoting characterological traits and employ resilience-promoting behaviors (e.g., not giving up, being kinder to one's self, seeking additional support, using creativity to solve problems). Through previous development of resilience-promoting characterological traits and well-timed employment, study participants consistently neutralized or vanquished adversarial circumstances/situations.

Research Question #4: How does resilience impact the ways female graduate students with ADHD cope with the academic challenges and stressors engendered by ADHD symptomatology?

The GET interpreted in relation to Research Question #4 was: Implementing strategies to improve academic functioning and psychological wellbeing. This GET was derived from the

following themes: making accommodations or seeking out help, time management, leveraging atypical attention regulation, and embracing a positive mindset. Though each study participant experienced their ADHD symptoms as a hindrance to their academic functioning, all were able to recover from academic adversity engendered by ADHD symptomatology. However, study participants' ability to achieve positive academic outcomes (e.g., perform well-enough academically in college to gain acceptance into graduate school, attend graduate school) does not sufficiently explain their resilience given that resilience necessitates positive adaptation in the presence of risk (i.e., adversity) (Luthar & Zelazo, 2003). Thus, to fully appreciate study participants' resilience, their positive adaptation (i.e., their ability to manage ADHD symptoms well enough to attend graduate school) must be understood as having occurred within the context of risk (i.e., adverse circumstances/situations engendered by ADHD symptomatology).

Although each study participant's desire to cope with academic challenges and stressors engendered by ADHD symptomatology appeared to motivate improved academic functioning and psychological wellbeing, these efforts, despite falling into specific categories (e.g., making accommodations or seeking out help, time management, leveraging atypical attention regulation, embracing a positive mindset), were demonstrated in unique ways (e.g., asking for extra help from professors/therapists, setting personal deadlines, listening to podcasts about ADHD, hyperfocusing, remembering that certain forms of suffering are time-limited). Idiosyncratic behavioral manifestations of resilience amongst study participants were unsurprising given that study participants were not identical with respect to their ADHD symptom count (i.e., the number of ADHD symptoms experienced), the severity of their ADHD symptoms, their ADHD medication status, their risk factors, their protective factors, their promotive factors, or the type and severity of their adversarial circumstances/situations.

The two most heavily-endorsed themes interpreted in relation to Research Question #4 were making accommodations or seeking out help (N=7) and leveraging atypical attention regulation (N=7). Study participants who made accommodations or sought out help did so in a variety of ways. In addition to seeking support through psychopharmacological interventions (e.g., psychostimulants, anxiolytics, antidepressants) and psychotherapy, study participants made numerous evidence-based behavioral, lifestyle, and relational changes (e.g., abstaining from alcohol, asking professors for additional guidance on school assignments, improving communication with academic advisors, being open with others about ADHD-related struggles, accessing additional academic support through school-based disability services, modifying and optimizing their work/study environments) found by researchers (e.g., Anastopoulos et al., 2015; Eddy et al., 2018; Gray et al., 2016; Meaux et al., 2009; Safren et al., 2004) to improve ways of coping with ADHD symptomatology.

Almost all of this study's participants described coping with their ADHD symptomatology by leveraging atypical attention regulation (e.g., hyperfocus, distractibility, boredom). Whereas some students found additional auditory stimuli (e.g., podcasts, television shows, music) helpful while doing schoolwork, others benefitted from maintaining numerous ongoing projects. By maintaining numerous ongoing projects, study participants could remain productive after their attention on a task waned. Several study participants also found that their ability to hyperfocus (i.e., focus for long periods of time) aided academic performance. Although focusing for long periods of time on a single task resembles states of flow which have been shown (e.g., Csikszentmihalyi, 1991) to positively impact attention and emotion, it has been argued that hyperfocus prevents appropriate task-shifting and leads to perseveration, rigid thinking, and rigid behavior (APA, 2013; Barkley, 1999; Greenberg et al., 2012; Ruscio et al.,

2011). For this study's participants, the ability to hyperfocus was almost universally experienced as academically advantageous. In addition to helping study participants complete large amounts of schoolwork in the hours and minutes before it was due, hyperfocus pushed study participants to expend extra energy and attention on school assignments they found interesting. The positive byproducts of this were deeper learning experiences, better grades, and more laudatory feedback from professors.

The other two themes comprising the GET interpreted in relation to Research Question #4 were time management (N=4) and embracing a positive mindset (N=5). In addition to lower levels of social functioning and higher rates of comorbid psychopathology (Greenwald-Mayes, 2002; Shaw-Zirt et al., 2005), individuals diagnosed with ADHD frequently exhibit deficits in executive functioning (Barkley, 2008; Boonstra et al., 2005; Semrud-Clikeman & Harden, 2011; Weyandt et al., 2013). Deficits in executive functioning negatively impact academic functioning given that executive functions regulate higher order cognitive processes (e.g., decision-making, goal-directed behavior, self-regulation) (Baddeley, 2007; Miyake et al., 2000). Although time management is not an executive function, it is an ability subsumed under self-regulation (Lan et al., 2004). Perhaps as a countermeasure against their ADHD symptoms' negative impact on their executive functioning, study participants used a variety of time management strategies. Chief among these strategies was the use of daily planners. In addition to daily planners, study participants discussed the importance of study breaks. Not only did study breaks help conserve energy, they protected study participants from emotionally dysregulated psychological states (e.g., frustration, burnout, despair) as well as risky behaviors borne out of emotional dysregulation (e.g., socially unacceptable displays of anger, risky driving, risky sexual behavior,

substance abuse) (Barkley et al., 2002; Heiligenstein & Keeling, 1995; Rabiner et al., 2008; Shaw-Zirt et al., 2005 Weyandt et al., 2003).

Study participants also discussed the importance of embracing a positive mindset to cope with academic challenges and stressors engendered by ADHD symptomatology. Due to increased demands and expectations, graduate school is frequently experienced as a time of high-stress (Mallinckrodt et al., 1989). As a consequence of being under high stress for prolonged periods of time, graduate students are at increased risk of physical and psychological health problems (Toews et al., 1993). To cope with the demands of graduate school, study participants described positioning their stress and its sources (i.e., stressors) into the broader context of their lives. Whereas some study participants found that their graduate-school-related stress abated after appreciating its transience or time-limited nature, others reduced their stress by reminding themselves that they had responded resiliently to worse situations in the past (e.g., "I've lived through far more stressful situations in my life"). Study participants also experienced a reduction in graduate-school-related stress by recalling long-term goals or reasons for entering graduate school (e.g., deepening their understanding of a specific subject, becoming a licensed psychotherapist, earning a master's or doctoral degree).

Embracing a positive mindset also helped study participants cope with academic struggles engendered by ADHD symptomatology. Instead of conceptualizing their ADHD symptomatology as either a deficit or source of impairment, the majority of study participants believed that their ADHD symptomatology conferred certain advantages (e.g., it allowed them to see the world differently, it spurred creativity, it allowed them to approach problem-solving in non-traditional ways, it increased their ability to be empathic). For example, to counter her distractibility in class, one study participant adopted active notetaking to maintain her attentional

engagement. Although the deficits-based medical model of psychology does not conceptualize mental health disorders or their symptoms as adaptive or capable of conferring advantages, positive psychology and strengths-based frameworks argue that symptoms of mental health disorders can be adaptive and confer advantages (Greven et al., 2018). Thus, mental health disorder symptoms' classification on the mental health continuum depends on the nosological framework to which they are subjected and scrutinized. In the case of ADHD-related distractibility, whereas a deficits-based model would view the trait as pathological and maladaptive, a strengths-based, positive psychology model would conceptualize the trait as an opportunity for learning, growth, and recovery (Ezell et al., 2023). Perhaps unwittingly, study participants' conceptualizations of their ADHD symptomatology accorded most closely with strengths-based approaches informed by positive psychology.

Clinical Implications

The results of this study suggest the need for a more balanced and nuanced discussion concerning the impact of ADHD symptomatology on academic functioning. In addition to detailing how their ADHD symptomatology impacted their academic functioning, study participants discussed their strategies for coping with their ADHD symptomatology and how resilience helped them persevere through hardships engendered by ADHD symptomatology. Not only did study participants offer numerous ways of coping with ADHD symptomatology, they richly described how they implemented their coping strategies and why they experienced them as efficacious. Although these coping strategies were specific to each individual, it is possible that they can be utilized to good effect by other individuals with ADHD or by individuals struggling with other mental health disorders.

This study also spotlighted individuals who have ascended the ranks of higher learning despite being diagnosed with a mental health disorder often described and referred to throughout the extant literature as a detriment to academic functioning. Clinicians, teachers, family members, and friends may derive hope and optimism from this study and perhaps adjust their beliefs and preconceptions about what individuals with ADHD are capable of achieving academically. Furthermore, rather than construe ADHD symptomatology as an insurmountable impediment or as a deficit guaranteed to function as a drag on academic functioning or performance, this study offers evidence as to why ADHD symptomatology need not compel an individual to abandon his or her academic dreams.

Study participants also displayed a willingness to openly and evenhandedly acknowledge the pros and cons of their ADHD symptomatology. Such evenhandedness has been conspicuously absent not only in the literature on ADHD, but in much of the literature on other mental health disorders. As a byproduct of focusing on study participants' resilience, rich information was gleaned about the advantages of ADHD symptomatology. In accordance with strengths-based approaches informed by positive psychology, study participants did not conceptualize their symptoms only in negative terms or as something to be eliminated or overcome. Instead, participants were willing to acknowledge certain aspects of their ADHD symptomatology (e.g., hyperfocus) as academically advantageous and other aspects as opportunities for learning and growth. Given that expressions of ADHD symptomatology tend to manifest in children during the early stages of elementary school, both grade school teachers and mental health professionals specializing in working with children may find this study's findings particularly useful – especially those pertaining to coping strategies, resilience, and the utility of

employing non-stigmatizing (i.e., strengths-based) approaches when working clinically with individuals with ADHD.

Limitations

Given that this study used a qualitative research approach (i.e., Interpretative Phenomenological Analysis [IPA]), it was bound by the limitations inherent to qualitative research and the limitations specific to IPA. Rather than engage in quantitative assessment and comparison, this study sought to understand how ADHD symptomatology impacts the academic functioning of female graduate students with ADHD. This study also sought to understand how female graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology, how they experience themselves as resilient, and how resilience impacts their ability to cope with academic challenges and stressors engendered by ADHD symptomatology. Thus, this study was not designed to quantize study participants' experiences, or compare them to other individuals' experiences, or test the validity of theories seeking to explain those experiences. Instead, this study sought to function as a launching pad for new theory following deep investigation, rich description, careful interpretation, and rigorous analysis of the experiences of female graduate students with ADHD.

The small and homogenous nature of this study's sample population potentially imperils the generalizability of this study's findings. The absence of extant literature on graduate students with ADHD also potentially reduces the generalizability of this study's findings. Although this study was open to both male and female graduate students with ADHD, all of the individuals who were screened through and qualified for the study were female. Thus, the relevance of this study's findings to male graduate students with ADHD is unknown. This study's exclusion criteria also potentially impede the generalizability of this study's findings. Graduate students

with ADHD were not allowed to participate in this study if they endorsed one or more of the following exclusion criteria: a history of head trauma and/or concussion requiring hospitalization, a history of psychotic symptoms or diagnosis of psychosis, a diagnosis of a comorbid learning disorder (LD), current use of illegal substances or cannabis, current use of psychotropic medication, current misuse of ADHD medication (i.e., taking either more or less medication than prescribed), or current alcohol abuse. Although this study used the aforementioned exclusion criteria to decrease the impact of potential confounds, it is possible that those who screened through and participated in this study do not represent the majority of graduate students with ADHD or the majority of other individuals in other subpopulations of the ADHD community (e.g., elementary students with ADHD, high school students with ADHD, college students with ADHD).

Two additional limitations of this study are related to the validity of this study's findings. Firstly, data were acquired through study participants' responses to a series of structured and impromptu follow-up questions asked during a 45-60 minute Zoom-based interview. Independent measures were not taken to evaluate the veracity of study participants' claims or descriptions of their experiences. In addition to being the individual responsible for collecting this study's data, this study's primary investigator was responsible for conducting all aspects of the study's data analysis (e.g., reading and notating participants' interview transcripts, formulating experiential statements, clustering experiential statements, compiling tables of personal experiential themes, identifying and creating group experiential themes). To increase the validity of this study's research findings, the primary investigator engaged in researcher reflexivity by maintaining awareness as to how their subjectivity and philosophical preconceptions could impact the research process. As another check against researcher bias, the

primary investigator conferred with his dissertation chair to ensure the face validity of emergent individual and group experiential themes.

Future Research

Although the dearth of research on high-functioning individuals with ADHD is unfortunate, this paucity of knowledge affords researchers opportunities to break new ground. A strength and limitation of this study was the fact that all participants were female. Recruiting an equal number of male and female graduate students with ADHD could help researchers assess whether biological sex moderates ADHD symptoms' impact on academic functioning, coping, and resilience. In addition to controlling for sex differences, recruiting an equal number of medication-taking and medication-abstaining graduate students with ADHD could help individuals with ADHD decide the appropriateness of pharmacological interventions. Additionally, much could be gained from investigating person-centered and environmental factors engendering resilience in individuals with ADHD. Although successful functioning is determined by a multiplicity of factors, this study's findings suggest that resilience was key to study participants' academic success. Not only did resilience appear to function as a protective factor against academic impairment, it appeared to promote study participants' development and implementation of tools and strategies for coping with ADHD symptomatology.

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Appendix A

Request to Recruit Study Participants

Dear [PROVOST / PROGRAM CHAIR]

My name is Colin Mattingly. I am a doctoral student studying clinical psychology at Antioch University Santa Barbara (AUSB). I am hoping to start collecting information for my dissertation on graduate students at Antioch University with Attention Deficit Hyperactivity Disorder (ADHD). In addition to investigating how ADHD symptomatology impacts the academic functioning of Antioch graduate students with ADHD, I am investigating how graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology and how resilience informs their coping styles and strategies.

The nature of my study is qualitative. For my research methodology, I am planning to use Interpretative Phenomenological Analysis (IPA). The size of my sample will be (N=8). My study has been fully reviewed and approved by the Institutional Review Board (IRB) at AUSB. For further inquiries, please contact Dr. Brett Kia-Keating, the Chair of the IRB at AUSB, at xxxxx@xxxxxxxx.xxx.

In addition to introducing myself and the nature of my study, this letter also seeks to learn whether you would be willing to disseminate my "study participation flyer" via electronic mail (e-mail) to the Antioch-based Gmail accounts of graduate students currently attending one or more graduate school programs within your school at Antioch. Please note that my study's participation flyer is attached to this email.

To determine whether individuals are eligible to participate in my study, I have designed a "preliminary survey screener" accessible at https://mattinglydissertation.com. Please note that a word.doc version of my preliminary survey screener is attached to this email. The purpose of the preliminary survey screener is to screen-in individuals who meet all of the study's inclusion criteria (and DO NOT meet any of my study's exclusion criteria) and to screen-out individuals who DO NOT meet all of the study's inclusion criteria or meet one or more of the study's exclusion criteria.

For future correspondence, please contact me at xxxxx@xxxxxxxx.xxx.

Respectfully,

Colin Mattingly

Appendix B

Request for Study Volunteers

Dear fellow Antioch University graduate students,

My name is Colin Mattingly. I am a doctoral student studying clinical psychology at Antioch University Santa Barbara. I am collecting information for my dissertation on graduate students with Attention Deficit Hyperactivity Disorder (ADHD). In addition to investigating how ADHD symptomatology impacts the academic functioning of graduate students with ADHD, I am investigating how graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology and how resilience informs their coping styles and strategies.

Individuals interested in participating in the study must be actively enrolled in one or more graduate school programs. Those who pass through a preliminary screening measure, accessible at https://mattinglydissertation.com, will be invited to participate in a 45-60 minute Zoom interview. At the interview stage, individuals will be asked a series of questions about: (1) how their academic functioning in graduate school has been impacted by ADHD symptomatology, (2) how they have coped with the academically deleterious aspects of ADHD symptomatology since starting graduate school, and (3) how resilience has informed the ways they have coped with the academically deleterious aspects of ADHD symptomatology since starting graduate school.

Volunteers who meet the study's inclusion criteria, fail to meet any of the study's exclusion criteria, and complete the 45-60 minute audio and visually recorded Zoom-based one-one-one interview with the researcher will be awarded a $50 Amazon gift card.

All information gathered during screening procedures and interviews is confidential. Personal information used in the study will be deidentified to protect confidentiality.

If you are interested in participating in my study, please go to https://mattinglydissertation.com and complete the preliminary screening measure. This screener takes approximately 5 minutes to complete. If you have any questions or concerns regarding participation, you may contact Dr. Brett Kia-Keating, the supervising faculty for this research study, at xxxxx@xxxxxxxx.xxx.

Respectfully,

Colin Mattingly, M.A.
Doctoral Candidate
Antioch University Santa Barbara

Appendix C

Survey Screener

WELCOME TO MY SURVEY

Thank you for participating in my survey. Please answer the following questions, then click NEXT after completing each section.

REQUIRED DEMOGRAPHIC INFORMATION

1. Please state your age. **YEARS ONLY**.
2. What is your gender? (Study validation requirements only allow Male and Female designations.)

HISTORY – Yes/No answers

Please answer the following 6 questions.

1. Do you have a history of head trauma or concussion that required hospitalization?

YES = 1 / NO = 0

2. Do you have a history of psychotic symptoms or a diagnosis of psychosis?

YES = 1 / NO = 0

3. Have you been diagnosed with a learning disorder?

YES = 1 / NO = 0

4. Do you use marijuana or any illegal substance on a regular basis (i.e., at least once a week)?

YES = 1 / NO = 0

5. Are you currently using psychotropic medication (e.g., antidepressants, anti-anxiety agents, antipsychotics, mood stabilizers)?

YES = 1 / NO = 0

6. If you are taking medication for ADHD, are you taking it the way it was prescribed?

YES = 0 / NO = 1 / Not Applicable = 0

HISTORY RESULTS

If 1 or more points, direct to Disqualification Page. If 0 points, continue to Alcohol Use (General) question.

ALCOHOL USE (GENERAL)

Please answer the following question.

Do you drink alcohol?

If YES, direct to Alcohol Use (Specifics) page. If NO, continue to ADHD questions.

ALCOHOL USE (SPECIFICS)

Please answer the following 10 questions.

1. Do you feel you are a normal drinker?

YES = 0 / NO = 2

2. Do your friends or relatives think you are a normal drinker?

YES = 0 / NO = 2

3. Have you ever attended a meeting of Alcoholics Anonymous?

YES = 5 / NO = 0

4. Have you ever lost friends or girlfriends/boyfriends because of your drinking?

YES = 2 / NO = 0

5. Have you ever gotten in trouble at school or work because of your drinking?

YES = 2 / NO = 0

6. Have you ever neglected your obligations, your family, or your work for 2 or more days in a row because you were drinking?

YES = 2 / NO = 0

7. Have you ever had delirium tremens (DTs), severe shaking after heavy drinking or when you tried to quit drinking?

YES = 2 / NO = 0

8. Have you ever gone to anyone for help about your drinking?

YES = 2 / NO = 0

9. Have you ever been in a hospital because of your drinking?

YES = 5 / NO = 0

10. Have you ever been arrested for drunk driving or driving after drinking?

YES = 2 / NO = 0

If 6 points or more, direct to Disqualification Page. If 5 points or less, continue to ADHD Questions.

ADHD QUESTIONS

Please answer the following 26 questions.

["Not at all, never" = **0** ; "Just a little, once in a while" = **1** ; "Pretty much, often" = **2** ; "Very much, very frequently" = **3**]

1. I interrupt others when talking.
2. I am always on the go as if driven by a motor.
3. I'm disorganized.
4. It's hard for me to stay in one place very long.
5. It's hard for me to keep track of several things at once.
6. I'm bored easily.
7. I have a short fuse/hot temper.
8. I still throw tantrums.
9. I avoid new challenges because I lack faith in my abilities.
10. I seek out fast paced, exciting activities.
11. I feel restless inside even if I am sitting still.
12. Things I hear or see distract me from what I'm doing.
13. Many things set me off easily.
14. I am an underachiever.
15. I get down on myself.
16. I act okay on the outside, but on the inside I'm unsure of myself.
17. I can't get things done unless there's an absolute deadline.
18. I have trouble getting started on a task.
19. I intrude on others' activities.
20. My moods are unpredictable.
21. I'm absent-minded in daily activities.
22. Sometimes my attention narrows so much that I'm oblivious to everything else; other times it's so broad that everything distracts me.
23. I tend to squirm or fidget.
24. I can't keep my mind on something unless it's really interesting.
25. I wish I had greater confidence in my abilities.
26. My past failures make it hard for me to believe in myself.

ADHD QUESTIONS RESULTS

Compile results as follows for each participant by letter:

Add up A results: 3,5,17,18,21

Add up B results: 4,6,10,11,23

Add up C results: 1,7,8,13,20

Add up D results: 9,15,16,25,26

Add up E results: 2,7,8,9,11,12,14,17,19,22,24,26

Then for each participant, calculate:

|3-21| + |17-18| + |6-10| + |4-11| + |13-20| + |7-8| + |15-16| + |9-26|

If total is 8 or more, flag as "inconsistent" and send to Disqualification Page

If total is 7 or less, score as set forth below, based on participant's demographic information:

If Sex = M and Age = 18-29, then M1 scoring

Flag each result where: A ≥ 10, B ≥ 12, C ≥ 10, D ≥ 11, E ≥ 22

If Sex = M and Age = 30-39, then M2 scoring

Flag each result where: A ≥ 8, B ≥ 11, C ≥ 9, D ≥ 10, E ≥ 19

If Sex = M and Age = 40-49, then M3 scoring

Flag each result where: A ≥ 9, B ≥ 10, C ≥ 8, D ≥ 10, E ≥ 19

If Sex = M and Age = 50+, then M4 scoring

Flag each result where: A ≥ 8, B ≥ 10, C ≥ 8, D ≥ 8, E ≥ 18

If Sex = F and Age = 18-29, then F1 scoring

Flag each result where: A ≥ 9, B ≥ 11, C ≥ 9, D ≥ 11, E ≥ 20

If Sex = F and Age = 30-39, then F2 scoring

Flag each result where: A ≥ 8, B ≥ 10, C ≥ 8, D ≥ 11, E ≥ 19

If Sex = F and Age = 40-49, then F3 scoring

Flag each result where: A ≥ 8, B ≥ 9, C ≥ 8, D ≥ 11, E ≥ 18

If Sex = F and Age = 50+, then F4 scoring

Flag each result where: A ≥ 9, B ≥ 9, C ≥ 7, D ≥ 10, E ≥ 18

If participant has 1 or fewer letters flagged, send to Disqualification Page.
If participant has 2 or more letters are flagged, send participant to Contact Information.

CONTACT & ADDITIONAL DEMOGRAPHIC INFORMATION

You may qualify for the study! Please answer the following for additional demographic information, and contact information so I may contact you for a 45-60 minute Zoom interview.

Before the interview, I will email you the required consent forms for review. We will go over the study procedures and consent forms immediately before the interview takes place. I very much appreciate your time and your support for this study! All information provided in this survey will be confidential.

Colin Mattingly, M.A.
Clinical Psychology Doctoral Candidate
Antioch University, Santa Barbara

1. Please type your FIRST and LAST name.
2. Please type your email.
3. Please type your phone number (numbers only).
4. Please indicate your preferred method of contact: Email or Phone
5. Please state the name of the school or university you are currently attending.
6. How many years have you been in graduate school?
7. What academic field are you studying in graduate school?
8. What degree (e.g., MA, MS, MBA, MFA, PhD, PsyD) will you earn upon graduation?

Format rules: 2 for email only, and 3 for phone number only with area code.
Then send all contact and demographic information of the participant with matching individual letter scores by email to xxxxx@xxxxxxxx.xxx.

DISQUALIFICATION PAGE

Thank you for participating in this initial screening. Unfortunately, you aren't a match for this study. I very much appreciate your time and your support for this study!

Colin Mattingly, M.A.
Clinical Psychology Doctoral Candidate
Antioch University, Santa Barbara

Then notify of disqualified survey attempts, with History scores and Alcohol scores, by email to xxxxx@xxxxxxxx.xxx.

Appendix D

Informed Consent

Name of Researcher: Colin Mattingly, M.A.
Name of University: Antioch University Santa Barbara

I,_____, hereby authorize Colin Mattingly, M.A. to gather information from me through an interview for the study conducted as part of a doctoral dissertation in Clinical Psychology at Antioch University Santa Barbara.

1. The purpose of this study is to explore how ADHD symptomatology impacts the academic functioning of graduate students with ADHD. This study is also concerned with how graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology and how resilience informs their coping styles and strategies.

2. As a participant in the study, I will be asked to participate in the following procedures:

   (i) A preliminary screening measure accessible at https://mattinglydissertation.com to ensure that all inclusion criteria are met and that none of the exclusion criteria are met.
   (ii) A one-on-one 45-60 minute Zoom interview conducted by Colin Mattingly, M.A. exploring my experiences as a graduate student with ADHD.

3. Both the audio and visual components of the Zoom-based interview will be recorded. The Zoom-based interview will take place at a time that has been mutually agreed upon.

4. If Zoom's live speech-to-text audio transcription feature fails or renders an invalid audio transcription, the researcher reserves the right to submit a separate audio recording (stored and recorded on the researcher's iPhone via the Voice Memos app) to Rev, a third party speech-to-text transcription service. All Rev transcriptionists sign a non-disclosure agreement wherein they agree to keep secret and not disclose to anyone any of the

confidential information revealed in the audio recording or the audio recording transcription. Rev destroys each audio recording and audio recording transcription following successful submission and client receipt of the transcribed audio recording.

5. My participation involves minimal risk to me beyond the possibility of some anxiety or emotional discomfort related to responding to interview questions.

6. The possible direct benefits I may receive as a result of participating in the study include but may not be limited to the following:
    (i) Gaining the experience of participating in a research study
    (ii) Helping a fellow graduate student complete their dissertation
    (iii) Increased self-awareness
    (iv) Increased self-knowledge
    (v) Increased self-compassion
    (vi) Increased compassion and empathy for other individuals struggling and coping with one or multiple mental health disorders

7. By participating in the study, other individuals may benefit as a consequence of increased knowledge or compassion for a unique subset of individuals with ADHD. Many stakeholders (e.g., parents of individuals with ADHD, teachers of individuals with ADHD, friends of individuals with ADHD, romantic partners of individuals with ADHD) stand to benefit from learning how ADHD symptomatology impacts the academic functioning of graduate students with ADHD and how resilience impacts their ability to cope with the academically deleterious aspects of ADHD symptomatology.

8. For the protection of my privacy, all information obtained from me will be kept confidential. This consent form along with my name and contact information will be stored in a locked cabinet separately from the data. My identity will be protected using a participant ID number instead of my name, and a pseudonym will be used for any paraphrases or quotations in written publications. Interviews will commence after I have signed a separate form titled “Authorization to Audio Record.” All confidential

information and data (e.g., interview transcripts, field notes, participant information and consent forms, audio recordings, digital files) will be stored in a locked file cabinet only accessible to the researcher or on the researcher's password-protected personal computer. All confidential information will be deleted, shredded, and disposed of in a confidential manner under the following schedule: audio recordings immediately after transcription; my contact information 1 year; consent forms 3 years; interview transcripts, field notes, digital files 7 years.

9. If I have any questions or concerns as a result of participating in this study, I may contact Brett Kia-Keating, PhD, the supervising faculty for this research study and the IRB chair at Antioch University Santa Barbara at xxxxx@xxxxxxxx.xxx.

10. My participation in this study is voluntary. My refusal to participate will NOT result in penalty or loss of benefits. I may refuse to answer any questions that I do not feel comfortable answering. I understand that the researcher may drop me from the study at any time. I understand that I may drop out of the study at any time.

11. Upon completion of both my participation and the study, I may receive a summary of the results of this research project by contacting Colin Mattingly at xxxxx@xxxxxxxx.xxx.

12. I have read and understood this form and have had any questions about this research answered to my satisfaction. My signature indicates my willingness to be a participant in this research.

_____ _____

Participant's Signature Date

_____ _____

Researcher's Signature Date

Appendix E

Authorization to Record

I,_____, give my permission to Colin Mattingly, M.A. to record our interview as part of his dissertation on how Attention Deficit Hyperactivity Disorder (ADHD) impacts the academic functioning of graduate students with ADHD, how graduate students with ADHD cope with the academically deleterious aspects of ADHD symptomatology, and how resilience informs their coping styles and strategies. This dissertation fulfills a requirement for the doctoral degree in Clinical Psychology at Antioch University Santa Barbara. I understand the following about the recorded material:

1. Recorded material (audio and visual) will be downloaded to Colin Mattingly's personal computer and stored in a password-protected file.

2. Audio recordings of participant interviews will be transcribed via Zoom's speech-to-text live transcription. If Zoom's live transcription fails or renders an invalid transcript, the researcher reserves the right to upload a secondary back-up audio recording to Rev. Rev is a highly secure and confidential third party speech-to-text transcription service that requires its transcriptionists to sign a non-disclosure agreement (NDA). Rev's NDA legally obligates all transcriptionists to keep secret and not disclose to anyone any of the confidential information revealed in the audio recordings or the audio recording transcriptions. Rev destroys each audio recording and audio recording transcription following successful submission and client receipt of the transcribed audio recording.

3. To protect confidentiality, identifying information will be deidentified through the use of a participant ID number and pseudonym. The transcribed material may be used in the dissertation in the form of quotations and paraphrased statements identified by the pseudonym.

4. At my request, audio recording can be discontinued at any time.

Participant's Signature	Date
Researcher's Signature	Date

Appendix F

Interview Schedule

INTRODUCTIONS & CONSENT

(1) Make sure the participant has read and understands the Informed Consent form and the Authorization to Audio Record form. Then, explain expectations of the interview.

- Thank you for meeting with me.
- Over the next 45 to 60 minutes, I will be asking you six main questions about your experiences as a graduate student with ADHD. Your responses may prompt me to ask some impromptu follow-up questions. Follow-up questions will be posed to give you the opportunity to expound on your experiences and/or consider them in slightly different ways.
- In addition to wanting to understand how ADHD has impacted your academic functioning, I am interested in learning how you have been able to cope with and work around the aspects of ADHD symptomatology that have the tendency to make academic work challenging. I am also interested in learning how you experience yourself as resilient and how resilience has impacted how you have coped with academic challenges and stressors engendered by ADHD symptomatology.
- There are no right or wrong answers to anything I will be asking you.

(2) Reminders to research participant:

(i) The interview will be audio-recorded. Participant can ask to stop the recording at any time.

(ii) Measures are in place to keep Participant's personal information secure and confidential.

(iii) Responses to interview questions will be attributed to a pseudonym or number in the Result's section of the researcher's dissertation.

(iv) Participant has the right to withdraw their consent and terminate participation in the study. The decision to drop out of the study should be made without fear of negative repercussions.

(v) Participants can refuse to answer any individual questions they do not want to answer without repercussion.

(3) Ask participant if they have any further questions.

(4) Inform participant that the audio recording device will be turned ON once their desire for the interview to start has been verbalized.

(5) Ask participant if they are ready to start the interview.

(6) Turn on audio recorder following participant's verbal acknowledgement that they are ready for the interview to commence.

INTERVIEW QUESTIONS

1. When did you first find out that you have ADHD and how have you experienced your ADHD in your life in general?

2. How have your ADHD symptoms impacted you as a student over time? *Have these impacts changed over time? (E.g., primary school vs. high school vs. college/university vs. graduate school?)*

3. How have your ADHD symptoms impacted you since you've been in graduate school? *Could you give me an example? Could you describe X in greater detail? What impact, if any, have your ADHD symptoms had on your academic performance since you've been in graduate school?*

4. What strategies or techniques have you used to cope with the aspects of ADHD that tend to make academic work challenging? *What coping strategies and techniques have been most helpful since you've been in graduate school? Could you give me an example?*

Generally speaking, individuals characterized as *resilient* have demonstrated the ability to adapt in positive ways despite exposure to adverse or challenging circumstances or events.

5. I'm curious to learn whether you conceptualize yourself as someone who is resilient. Please feel free to share why you think you might or might not be resilient. *Do you think you are able to demonstrate resilience more frequently than your peers or classmates*? *What leads you to believe that?*

6. Can you share any examples of resiliency from your graduate school experience? *Specifically, how do you think you have demonstrated resilience in relation to your ADHD symptoms since you have been a graduate student?*

We have talked about a lot today. This type of experience often brings up other thoughts for people. Is there anything else you'd like to share while we're talking?

Do you have any further/last questions or comments, or any concerns?

Thank you for taking the time to meet with me. Take care.

I'm turning off the audio recorder now.

(7) Turn off audio recorder.