Concordia University St. Paul DigitalCommons@CSP

CUP Ed.D. Dissertations

Concordia University Portland Graduate Research

2-1-2019

# School and Work Experiences of Adults with ADHD: A Qualitative Case Study

Julieta E. Robello Concordia University - Portland, j\_robello\_2000@yahoo.com

Follow this and additional works at: https://digitalcommons.csp.edu/cup\_commons\_grad\_edd

Part of the Education Commons

#### **Recommended Citation**

Robello, J. E. (2019). *School and Work Experiences of Adults with ADHD: A Qualitative Case Study* (Thesis, Concordia University, St. Paul). Retrieved from https://digitalcommons.csp.edu/cup\_commons\_grad\_edd/283

This Dissertation is brought to you for free and open access by the Concordia University Portland Graduate Research at DigitalCommons@CSP. It has been accepted for inclusion in CUP Ed.D. Dissertations by an authorized administrator of DigitalCommons@CSP. For more information, please contact digitalcommons@csp.edu.

### Concordia University - Portland CU Commons

Ed.D. Dissertations

Graduate Theses & Dissertations

2-2019

# School and Work Experiences of Adults with ADHD: A Qualitative Case Study

Julieta E. Robello *Concordia University - Portland* 

Follow this and additional works at: https://commons.cu-portland.edu/edudissertations Part of the <u>Education Commons</u>

#### CU Commons Citation

Robello, Julieta E., "School and Work Experiences of Adults with ADHD: A Qualitative Case Study" (2019). *Ed.D. Dissertations*. 241. https://commons.cu-portland.edu/edudissertations/241

This Open Access Dissertation is brought to you for free and open access by the Graduate Theses & Dissertations at CU Commons. It has been accepted for inclusion in Ed.D. Dissertations by an authorized administrator of CU Commons. For more information, please contact libraryadmin@cuportland.edu.

Concordia University-Portland

College of Education

Doctorate of Education Program

# WE, THE UNDERSIGNED MEMBERS OF THE DISSERTATION COMMITTEE CERTIFY THAT WE HAVE READ AND APPROVE THE DISSERTATION OF

Julieta Emma Robello

#### CANDIDATE FOR THE DEGREE OF DOCTOR OF EDUCATION

Audrey E. Rabas, Ph.D., Faculty Chair Dissertation Committee

David J. Alba, Ed.D., Content Specialist

Paul T. Frankenhauser Jr., Ph.D., Content Reader

School and Work Experiences of Adults With ADHD:

A Qualitative Case Study

Julieta Emma Robello

Concordia University-Portland

College of Education

Dissertation submitted to the Faculty of the College of Education

in partial fulfillment of the requirements for the degree of

Doctor of Education in

Transformational Leadership

Audrey E. Rabas, Ph.D., Faculty Chair Dissertation Committee David J. Alba, Ed.D., Content Specialist Paul T. Frankenhauser, Ph.D., Content Reader

Concordia University–Portland

#### Abstract

The purpose of this study was to explore the life experiences of individuals with attention deficit hyperactivity disorder (ADHD). This phenomenological study focused on adults ages 18 to 40. The research questions posed were: (a) What barriers or successful strategies do individuals with ADHD encounter as they make their way through the educational system and into the workplace? (b) How do these individuals perceive their academic success or failure? (c) How is or was parental support a factor in their academic success or failure? and (d) How is or was teacher support a factor in their academic success or failure? These questions were analyzed through the lens of three theoretical perspectives: the transformative framework, Bronfenbrenner's theory of human development, and the disability theory. Purposive sampling was used. Five participants took part in the research. The researcher used a semi-structured interview tool for the one-on-one interviews. Four major themes and eleven subthemes were identified through coding. Findings indicate that individuals with ADHD may encounter many academic and social difficulties. Both parent and teacher supports are key factors in bringing about positive outcomes for students with ADHD.

*Keywords:* ADHD, comorbidity, educational change, medication, multidisciplinary approach

ii

#### Dedication

I dedicate this work to my entire family. I thank you for your patience and support all these years and for waiting patiently for me to achieve my dream and never giving up on me.

To my children Johnathan and Danielle: I have learned so much from you. You taught me about strength, courage, perseverance, creativity, and resilience. You are both so amazing and talented. You are my precious gifts from God; my inspiration, and my joy.

To my parents Sergio and Julieta: you have always been there for me through life's difficulties. Your positive outlook in life, your hardworking ways, and your infinite love have made it possible for this journey toward my doctoral degree to come to fruition. Through your example and sound advice, you have been the light that guides me. Thank you!

To my sisters, Dolores, Sara, and your families: My dear sisters, I am so lucky to have all of you in my life. From teaching me about makeup and dancing when we were growing up; to helping me with my kiddos and making sure we were all right; you have always been there for me through the laughter and the tears. I don't say it enough, but you are like beautiful shinning lights that always guide and brighten my path. I look forward to every minute we spend together and cherish all the memories of us. You and your beautiful families are such a blessing in my life.

To my *sisters of the heart* Gabriela, Lourdes, Connie, and Loraine: you did not have to, but you welcomed me into your life. There are no words to express my gratitude for your love, patience, support; and reassurance all these years. Each of you represent a chapter in my journey and has been a special teacher and a precious gift that God has blessed me with. Together we have grown to be stronger and our bond just keeps growing year after year.

iii

To Uncle Walter and Aunt Esthela: Where do I begin? You are both so special in my life. My second parents, you have been a lighthouse whose light has always illuminated my path through your example of selfless love, caring, and compassion.

To Bill, thank you for our amazing children, for being a part of my journey, for believing in me and supporting my dreams all these years: even from afar.

To Uncle Rene and Aunt Martha: Thank you for cheering me on. Your love and support mean so much. You have always been a pillar in my life.

There are no words that can express just how important all of you, my family, are in my life. Together you are my whole world, the reason for waking up every morning, the reason for pushing through even the toughest days. You are my rock! I love you all so very much. This work could never have been done without you. You are all a gift in my life.

#### Acknowledgments

My sincerest thank you to my committee Dr. Rabas, Dr. Alba, and Dr. Frankenhauser for your guidance and expertise which were invaluable; I appreciate you taking the time to read my many revisions of my dissertation and for your recommendations.

I would like to especially express my deepest appreciation to Dr. Rabas, my Committee Chair. I could not have asked for anyone better than you. Without your support, guidance, and encouragement, this work would not have been completed.

My most sincere gratitude to all the research participants for sharing your stories with me; your contributions are important, your stories matter, and they shed light into the reality of living with ADHD. Thank you, for trusting in me.

Dr. Leighangela Brady you cannot imagine how much your encouragement and support have meant to me. Thank you for taking time, to read my dissertation draft and provide me with your valuable feedback. Also, for trusting me with your story; you are an inspiration and a role model not just to me but the children that we serve.

A million thanks to my daughter, Danielle, for being my grammar and APA queen and for supporting and encouraging me every step of the way. You have made me so much smarter. Thank you for your patience and for being my biggest cheerleader. We did it!!!

Johnathan, from the moment you were born, you have been my teacher in so many ways. You have challenged me to look at the world through a different lens. You have opened my eyes to different realities and made me a better person because of it. Thank you for being my teacher.

Jerry, I thank you for riding this wave with me till the end, and for encouraging me when the work seemed so daunting. I appreciate your expertise, sense of humor and your support. Your gift for editing has made all the difference. Thank you!

v

Abstractii
Dedicationiii
Acknowledgments
List of Tables xii
Chapter 1: Introduction
Background
Context
History of ADHD
Conceptual Framework
Problem Statement7
Purpose of the Study9
Research Question and Sub-Questions
Research Objectives
Rationale, Relevance, and Significance of the Study11
Definition of Terms14
Limitations and Delimitations15
Limitations15
Delimitations
Summary16
Chapter 2: Literature Review
Introduction to the Literature Review
Context

## **Table of Contents**

Context	
Organization of Chapter	
Conceptual Framework	
Theory	
Topic Relevance	
Review of Research Literature	
Comorbidity and other factors associated with ADHD	
Perceptions of ADHD.	
Multidisciplinary Model	
Multidisciplinary model	
Review of Methodological Literature	
ADHD: The Debate	44
ADHD: The debate.	44
Review of Methodological Issues	46
Synthesis of Research Findings	
Critique of Previous Research	50
Summary	51
Chapter 3: Methodology	56
Research Questions	60
Purpose of the Study	60
Research Methods and Design	61
Research Population and Sampling Method	65
Population	65

Sample6	56
Sample	56
Instrumentation	58
Data Collection	59
Triangulation	59
Interviews	70
Pilot Study	71
Before the Interviews	73
During the Interviews	75
Identification of Attributes	76
Explicit Instruction Approach7	76
Collaborative Groups	76
Collaborative groups	76
Student Engagement	77
Conceptualization	77
Data Analysis Procedures	77
Limitations and Delimitations of the Research Design	78
Limitations	79
Delimitations	80
Expected Findings	81
Ethical Issues	82
Researcher's Position	82
Ethical Issues About the Study	83

Summary	84
Chapter 4: Data Analysis and Results	88
Description of the Sample	92
Participant 1	93
Participant 2	93
Participant 3	93
Participant 4	94
Participant 5	94
Research Methodology and Analysis	94
Phenomenological Research Design	98
Summary of Findings	99
Presentation of Data and Results	. 101
Academic Struggles	. 102
Complex Relationships	. 111
Negative Teacher Interactions	. 112
Positive Teacher Interactions	. 113
Adult Life Changes	. 121
Adult life challenges	. 121
Memorie Difficuties	. 121
Poor Organization	. 123
Resilliance	. 124
Strategies, Tools, and Accommodations	. 125
Summary	. 131

Chapter 5: Discussion and Conclusion	
Summary of the Results	
Discussion of the Results	
Academic Struggles	
Complex Relationships	
Adult Life Challenges	
Discussion of the Results in Relation to the Literature	
Limitations	
Implication of the Results for Practice, Policy, and Theory	
Practice	
Policy	
Policy.	
Theory	
Theory	
Recommendations for Further Research	
Conclusion	
References	
Appendix A: Informed Consent	
Appendix B: Participant's Demographic Information	
Appendix C: Interview Tool	
Appendix D: Research Interview Notes Template	
Appendix E: Research Questions	
Appendix F: Advertising Flyer	

Appendix G: Institution Request Letter	208
Appendix H: Radio Announcements	209
Appendix I: Functional Problems Associated with ADHD	210
Appendix J: Statement of Original Work	211

# List of Tables

Table 1 Participant Demographics	
Table 2 Identified Themes and Subthemes	101
Table 3 ADHD Strategies	126
Table 4 Helpful Tools	
Table 5 Accommodations for Students with ADHD	

#### **Chapter 1: Introduction**

Attention deficit hyperactivity disorder (ADHD) is a complex set of possibly harmful symptoms that have a great potential to impair a person's life quality and of those around them if not acknowledged and treated according to the person's unique needs and specific symptoms (Barkley, Murphy, & Fisher, 2008). According to 2011 statistics from the Center for Disease Control and Prevention, 6.4 million children were diagnosed with ADHD in the United States. When compared to the 2003 data from the same entity, this number represents an increase of 3.9 million more children diagnosed in less than 10 years (Visser et al., 2014).

The Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) identifies three types of ADHD: predominately inattentive, hyperactive-impulsive, and combined. Additionally, within each classification, the DSM-5 identifies three levels of severity: mild, moderate, and severe presentation of the symptoms (American Psychiatric Association, 2013). Presently, there is no consensus in the United States as to the medical markers or gold standards that need to be used to determine the existence of ADHD in an individual (Visser et al., 2014). Because there is a lack of consensus and lack of medical markers, ADHD is not considered a learning disability, even though the typical characteristics of hyperactivity, inattention, and impulsivity greatly affect these individual's ability to achieve academically (Barkley, 2002). Barkley noted that ADHD may impact an individual's ability to produce work in the classroom; it may also affect their ability to take turns during class activities, socialize with their peers, organize their tasks, and follow classroom instructions, among other difficulties.

A British longitudinal study that followed 10,000 individuals diagnosed with ADHD from birth to age 30 found that when compared to a non-ADHD control group, men and women with ADHD are at higher risk of negative outcomes throughout their lifespan. Some of those

outcomes included increased rates of homelessness, psychiatric disturbance, limited academic skills, lower earnings or unemployment, and higher rates of divorce. In cases involving women, they had a higher possibility of being a single parent. While men are at a higher risk for criminality, substance abuse disorder, and homelessness, women are more likely to earn even lower wages than males and to be single parents (Brassett-Grundy & Butler, 2004). A meta-analysis conducted by Pratt, Cullen, Blevins, Daigle, and Unnever (2002) studied the relationship between crime, delinquency, and ADHD, and found that ADHD "is an important risk factor for crime and delinquency" (p. 352).

Along with ADHD, individuals with this disorder also tend to have a poor self-image, lack of self-control, and associate themselves with individuals that exhibit anti-social behaviors (Pratt et al., 2002). Like other researchers, Brassett-Grundy and Buttler (2004) found that individuals with ADHD have higher rates of divorce, cigarette smoking, depression, and drug problems, and are more dissatisfied with their lives than their non-ADHD participants. The study also found that by age 30, males are more likely to be homeless, have persistent criminal offenses, have alcohol-related problems, and experience symptoms of Obsessive-Compulsive Disorder (OCD), as well as psychiatric disorders. Women are more likely to be cigarette smokers, have a higher risk for drug problems, have low-level paying employment, are a single parent, or are a non-working stay at home parent with children dependent on social assistance.

Although research shows that ADHD may bring about many negative outcomes, the literature also shows that ADHD is a condition that can be effectively managed. Given the right supports, individuals with ADHD can channel their abundant energy, creative mind, and tendency to hyper focus. Learning to harness these traits in a positive manner takes the help of a team that includes parents, teachers, counselors, and therapists. Through a combination of

strategies, tools, medication, and different kinds of therapy, the various symptoms may not be completely addressed but at least addressed to a certain degree (Purdie, Hattie, & Carroll, 2002).

#### Background

ADHD was once believed to be only a childhood disorder; however, it has been identified in recent years as a disorder that affects many individuals throughout their lifespans (Barkley, 2002). ADHD is a complex disorder that is rarely present without a comorbid condition, a condition that happens in conjunction with ADHD, like Oppositional Defiant Disorder (ODD), Obsessive Compulsive Disorder (OCD), or Conduct Disorder (CD) (Barkley & Murphy, 2007; Klein & Mannuzza, 2010). The characteristics and behaviors associated with this disorder may manifest themselves early on in life.

As early as two to three years of age, a child may express impulsive, hyperactive, or inattentive behaviors, which only become more prominent as the child begins formal education (Harazni & Alkaissi, 2016). Based on various research findings such as Harazni and Alkaissi (2016), Klein and Mannuzza (2010), and Barkley and Murphy (2007), it is clear that the impact of this condition can be felt throughout different levels, including the individual, family, community, and society at large. There is a need for further study of ADHD at all levels (Wymbs, Pelham, Molina, Gnagy, Wilson, & Greenhouse, 2008).

With regards to academic achievement, what is not known about ADHD is what is it in the life of individuals with ADHD that is different for those who succeed enough to make it to college and those who are unable to complete their high school studies and continue on to college? This study attempted to discover the factors that contribute to academic success and what hinders or prevents these young individuals from completing their education. It also sought

a better understanding of the perceptions regarding both school and work life for people ages 18 to 40 who have been diagnosed with ADHD.

#### Context

Although much research has focused on ADHD, there are still many gaps. For example, adult outcomes of ADHD are limited because of the lack of large-scale longitudinal studies related to this population (Brassett-Grundy & Buttler, 2004). Additionally, research studies related to the area of work performance are limited and should be further explored with a lens on job performance, the frequency of accidents, the number of sick days, and overall functioning in the workplace (Barkley, 2002). Furthermore, the data available in reference to other negative outcomes for adults with ADHD, such as repeated criminal behavior, is just starting to be considered as a significant factor that can possibly be mitigated or prevented by various means, such as community-based interventions, and awareness and education for the individual, the community, and the justice system (Leone, 2002).

Individuals ages 18 to 40 are a group of people who are in transition between adolescence into adulthood. These individuals are entering college or the workforce and find themselves in a difficult position; part of them has a need to claim their independence and move into adulthood, while the other part of them continues to need significant support from the adults close to them (Barkley, 2002). It is this group in particular that was the focus of this study.

#### **History of ADHD**

Lange, Reichl, Lange, Tucha, and Tucha, (2010) noted that as early as 1798, Sir Alexander Crichton, a Scottish doctor who specialized in mental disorders, described a condition which prevented an individual from attending to a given object in a consistent manner. In 1844, Heinrich Hoffmann, a German physician and psychiatrist, wrote the story of "Fidgety Phil,"

whose character, in modern times, is representative of a child with ADHD. In 1902, Sir George Frederick Still identified the behaviors of atypical children who had trouble controlling their behavior and in particular had great difficulty sustaining attention. He referred to these conditions as a "defect of moral control." Later, in 1917, there was an epidemic of encephalitis, and many children who survived this illness were found to exhibit a marked inability to focus, experience hyperactivity, impulsivity, were socially impaired, and easily distracted, making them difficult to manage in a school setting. Although these symptoms were noted before, this epidemic brought about increased awareness and interest by scientists to learn more about hyperactivity in children.

By 1932, Kramer and Pollnow identified a hyperactive condition, which they named hyperkinetic disease, which is an early predecessor to what is known today as ADHD. Kramer and Pollnow were the first to identify all the related symptoms of hyperactivity, impulsivity, and inattention as a disorder and formally recognize the possible detrimental outcomes associated with school during early childhood (as cited in Lange, et al., 2010).

#### **Conceptual Framework**

The transformative framework (Mertens, 2007) provided the background for this study. Individuals with ADHD may find themselves at a disadvantage both socially and academically, and face challenges in the work setting. The transformative framework was taken into account when analyzing the perspectives and values of individuals with ADHD that participated in this study and helped bring to life the experiences of this group and challenge the status quo. The transformative framework was the foundational structure through which this researcher examined assumptions and explored issues of social justice. According to Mertens, this framework focuses on issues that involve the community and particularly the power struggles

within society related to social justice. The transformative framework seeks to give a voice to those underprivileged individuals, such as those with medical conditions or disabilities. The transformative framework, like Bronfenbrenner's theory looks at the social, political, cultural, economic, ethnic, and values factors, and impact of these factors on the individual as well as the impact the individual has on these factors (Rosa & Tudge, 2013).

Bronfenbrenner's theory of human development is particularly important as it relates to ADHD because this disorder is known to have the potential to affect the life not just of the individual, but also their family unit, and the community at large, including the school and academic communities, the medical community, law enforcement, and many other entities. Bronfenbrenner's theory considers the interrelationship between the individual and the various ecological settings (Rosa & Tudge, 2013). By looking at ADHD through the lens of this model, it became evident how various relationships can make a significant difference on whether an individual with ADHD will have more or fewer opportunities to succeed based on the type of overall environment in which he or she is a part.

The disability theory looks at disabilities as a part of who the whole individual is rather than as a defect (Creswell, 2013). The focus of this theory uses the findings of a study to the benefit of the community of members with the identified disability, which in the case of this research study it was ADHD. According to Oliver (1998), individuals with disabilities want others to know about their experiences and needs. Through their stories, individuals with disabilities have changed the way society views them. Disability goes beyond the medical condition and into the political and social realms.

Historically, individuals with disabilities have been discriminated against throughout society. Today, individuals such as those with ADHD seek better living conditions and

opportunities, including both school and work settings. Using this theory as the basis for research, scientists have been able to develop interventions and technology that have helped individuals with various disabilities improve their life conditions (Oliver, 1998). This researcher aimed to further contribute to the current knowledge base and in this way benefit those in the ADHD community. The study participants' information was of great importance because it has the potential to influence the quantity the quality and quantity of opportunities made available to individuals with ADHD and thus contribute to better outcomes in the overall life experiences of members of their community and those whom they come in contact.

#### **Problem Statement**

It is not known what kind of modification, interventions, or strategies provide adults ages 18 to 40 the best opportunities for success both academically and in the workplace. Nor is it known how the college and work environments contribute or interfere with these individuals' abilities to succeed in those environments. What is known is that more people with ADHD are entering college, and many of them struggle with the increased personal and academic demands and the simultaneous decrease in support and structure (Weyandt & DuPaul, 2006).

Over the years, the demands in the workplace have become more complex and trying, which only makes it more difficult for individuals with ADHD to have a successful experience. The increased work expectations require that individuals entering the workforce have higher levels of proficiency and flexibility in addition to being socially able to effectively interact with individuals at many levels and often from different cultural backgrounds. Unlike their non-ADHD peers, individuals with ADHD are more likely to experience interpersonal conflicts in the workplace, have difficulty keeping up with the fast-paced work demands, receive low-

performance evaluations, and have a less stable job history, or be unemployed (Barkley, Fischer, Smallish, & Fletcher, 2002).

For these reasons, there is a significant need for more studies that target finding appropriate and effective modifications, interventions, and strategies that will allow academic institutions to make changes in their instruction and their systems in such a way that it makes it possible for more individuals with ADHD to thrive academically and continue advancing through the college stages and ultimately, successfully into a career field of their choice (Simon-Dack, Rodriguez, & Marcum, 2016).

In the same manner, in the workplace, there is a need to raise the awareness of potential employers as to the strengths and specific barriers individuals with ADHD might encounter in the work environment so that adjustments can be made to improve the opportunities and the successful performance of these individuals in the workplace. The lack of success in the workplace leads to detrimental financial consequences that affect not only the individual and their family, but also society at large (Altszuler et al., 2016; Barkley, Fischer, Smallish, & Fletcher, 2006; Barkley et al., 2008). Currently, there is limited research that explores the experiences of these adults regarding their successes or barriers encountered in the workplace (Eklund et al., 2016).

Although much research related to ADHD has been done, there is a limited amount of research with a focus on individuals ages 18 to 40, and much of that research data has been gathered from third parties, not the affected individuals (Glutting, Youngstrom, & Watkins, 2005). The focus of most of the research has been on childhood ADHD, and there is only a limited amount of research aimed at learning more about the needs and experiences of college-age individuals (Fleischmann & Miller, 2012; Glutting et al., 2005).

Students entering college campuses may struggle as they attempt to complete their college education or enter the workforce. This can be due to lack knowledge of their ADHD and blaming themselves for their shortcomings (Barkley, 2002; Guldberg-Kjär, Sehlin, & Johansson, 2012; Meaux, Green, & Broussard, 2009). Individuals who understand ADHD and see their traits as unique or special rather than a burden tend to do better than those who see it as a disadvantage (Fleischman & Miller, 2012). This study is important because it provided the opportunity to find new compensatory strategies, identify specific needs, and learn about participant perspectives of the average adult aged 18 to 40 who have been diagnosed with ADHD.

#### **Purpose of the Study**

This researcher's aim was to build new knowledge and perspectives through dialogue with individuals aged 18 to 40 who have been diagnosed with ADHD. This researcher and participants co-created new knowledge by taking an in-depth look at the effective strategies, perspectives, and obstacles that these adults use and experience in their daily interactions both in their school and work environments.

This study was qualitative in nature. According to Merriam and Tisdell (2016), "Qualitative research is based on the belief that knowledge is constructed by people in an ongoing fashion as they engage in and make meaning of an activity, experience, or phenomenon" (p. 23). There are many kinds of qualitative research; this project was a phenomenological research study. According to Creswell (2013), a phenomenological study focuses on making meaning of the lived experiences of the study subjects and describes the common meaning of the lived experiences these individuals have in common. A transcendental phenomenological approach was used for this study. In other words, this researcher used bracketing, a process in

which the researcher temporarily suspends personal preconceptions and focuses on the analysis of the data. However, Clandinin and Connelly (2000) would add that at the same time the researcher needs to take into consideration that this is not just the participants' story; rather the researcher is also a part of the story that will evolve through their joint dialogue. Thus, both the researcher and the participant might arrive at a new understanding of their circumstances and how they got to where they find themselves at a particular moment in time.

#### **Research Question and Sub-Questions**

RQ: What barriers or successful strategies do individuals with ADHD encounter as they make their way through the educational system and into the workplace?

SQ1: How do individuals aged 18 to 40 diagnosed with ADHD perceive their academic success or failure?

SQ2: Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was parental support a factor in their academic success or failure?

SQ3: Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was teacher support a factor in their academic success or failure?

This research focused on exploring the barriers or successful strategies the participants encountered as they made their way through the educational system and into the workplace. The research also explored how these individuals perceived their academic successes or failures, and in which way parents and teacher support or lack there off in their life influenced their academic successes or failure.

#### **Research Objectives**

This study aimed to contribute to a better understanding of the challenges that adults aged 18 to 40 with ADHD often experience in education. Through this study, this researcher

contributes to the general understanding of ADHD by exploring and co-creating new strategies and perspectives that may help adults with ADHD improve their outcomes in all areas: socially, academically, and in the workplace. In a sense, this research represents a way to advocate and promote social change for these men and women and to empower them to take active steps to improve their overall outcomes.

#### Rationale, Relevance, and Significance of the Study

A study by Barkley et al. (2006) followed a group of 149 individuals for a minimum of 13 years from childhood to adulthood and found that 32% of these individuals never graduated from high school. Additionally, those already in the workplace lost their job more frequently than their non-ADHD peers and experienced more symptoms identified by their employers as ODD in addition to their ADHD characteristics (Barkley et al., 2006). When it comes to higher education, although there is an increased number of students with ADHD entering college, these students still represent only a small percentage of the total ADHD population (Glutting et al., 2005). Despite having earned high enough grades to enter college, they still experience more struggles than their non-ADHD peers during their college years, and many never graduate (Barkley et al., 2006).

A study of college students conducted by Lefler et al. (2016) indicated that in general, students with ADHD have significant difficulty managing the demands of higher education. These students shared that they have limitations in their ability to read and understand the required text, and an inability to maintain focus and stay on task. Additionally, students with ADHD reported that they often struggle with lack of motivation and low academic achievement, despite having the potential to do better.

Lefler et al. (2016) reported that as it relates to academic supports, many students who participated in the study were not aware of the existence of accommodations, and those that were aware of this benefit did not consider that they needed the accommodations because ADHD is not a physical disorder. Other students with ADHD expressed that they did not want the help because they felt that it was not representative of the real world and they just needed to learn to cope without the help. Another group of students expressed that they did not request help or accommodations for fear of stigma and embarrassment. A different group of students expressed frustration as the reason for not requesting accommodations. These students felt that the professors were not responsive to their needs. Others shared that the process for getting assistance was time-consuming; redundant; and not worth the effort. Additionally, these students did not want to receive special privileges for testing, given additional time, or any other accommodation that would make them look different in front of their peers.

For those students who reported positive experiences when asking for accommodations, Lefler et al. (2016) reported that these ADHD students found that the following accommodations were the most helpful to them: professors posting lecture slides and outlines on the Internet, providing extra time and a different location for test-taking, having hands-on activities and videos; class discussion; and early registration. Students who sought counseling, therapy or other support interventions found that receiving specific instruction in time management and organizational skills helped them stay on track. Other participants, however, noted that their therapy sessions were a waste of time and that the university campus did not have the appropriate resources to help students with ADHD. These students asserted that their needs were unique and could not be appropriately addressed through the existing psychosocial treatment available at the university.

Researchers have consistently identified that many individuals with ADHD experience academic, social, and work-related difficulties (Barkley, 2002; Barkley et al., 2006; Fletcher & Wolfe, 2009; Loe & Feldman, 2007; Rabiner, Anastopoulos, Costello, Hoyle, & Swartzwelder, 2007). Other studies also found the same to be true. For example, researcher de Graaf and colleagues (2008) found that individuals with ADHD experience more difficulties in the workplace than their non-ADHD peers and they are also more prone to suffer accidents on the job, as well as experience more suspensions from their job. Barkley and colleagues (2006) pointed out that poor outcomes go beyond the academic setting.

ADHD affects the personal decisions of the individuals that are diagnosed as it relates to sexual activity, parenthood, and other key adult activities. ADHD is a condition that directly and indirectly touches every aspect of society, starting with the families of these young people who share that dealing with an ADHD child or young adult is challenging. The challenges for these parents include dealing with terminology that is unfamiliar to them and the fear of making the wrong decision when it comes to medicating their child. These parents also deal with personal struggles, as their expectations for their child clash with their child's limitations. Parents also face feelings of inadequacy due to their child's misbehavior and challenging attitudes (Ho, Chien, & Wang, 2011).

Educators are impacted during classroom instruction and often feel equally helpless when working with ADHD students in their classroom (Kern & Seabi, 2008). In the study conducted by Kern and Seabi, the researchers found that despite the wide range of theories regarding the root cause of ADHD, many teachers consider medication to be the most effective solution for managing the condition. These educators also feel frustrated at the lack of effective solutions and the limitations of the existing diagnostic tools.

#### **Definition of Terms**

*Comorbidity.* This term is defined as the experience of having two or more mental conditions simultaneously. Some examples include patients with ADHD who concurrently suffer from anxiety, depression, or bipolar disorder (Klein & Mannuzza, 2010).

*Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5).* This term refers to a book used by professionals, such as psychiatrists, to diagnose various mental disorders. It contains a set of characteristics and definitions used to diagnose and treat mental disorders. The latest version of this tool is the DSM-5, which now classifies ADHD as a neurodevelopmental disorder (American Psychiatric Association, 2013).

*Hyperactivity*. This term is defined as the inability to control the need for movement, and it may manifest in different ways, like the inability to wait in line; the inability to sit without squirming; the constant need to fidget; or the constant need to tap their hands or feet (Peters, 2015). Although people can be hyperactive at any given moment for several reasons, it is the persistence, frequency, and the presence of this behavior in different environments and situations that help determine whether this is a pervasive condition.

*Impulsivity*. This term is defined as exhibiting careless behavior that comes about without consideration for possible negative consequences, such as intruding on other people's conversations or activities or talking constantly, and even finishing other people's sentences and not giving others an opportunity to interact (Peters, 2015).

*Inattention.* This term is defined as the inability to focus on a given thing for extended periods of time. Those with problems of inattention exhibit a failure to remember or pay close attention to details and make frequent mistakes or are not able to follow through on instructions (Peters, 2015).

#### **Limitations and Delimitations**

**Limitations.** In any qualitative study, there is always potential for researcher bias (Creswell, 2014). Given that the researcher is the primary tool in a qualitative study, the researcher's perspectives and experiences inevitably influence the way the data is collected and the way the overall findings are interpreted. For this reason, it was important for this researcher to be conscious of the fact that bias can occur anytime during the research and to put in place as many controls as possible to prevent any biases from affecting the outcome of the study (Merriam & Tisdell, 2016).

Another limitation is the time commitment that a qualitative study such as this required of both the participants and the researcher (Creswell & Poth, 2018). The small participant number also represents a limitation of this study. The aim of this qualitative study was to provide a rich understanding of the life experiences of the participants, for the purpose of contributing insight as well as new strategies and tools that would bring about positive changes for this segment of the population.

Thus, being able to apply or transfer the research findings to other members of the population beyond the participants is an important step toward contributing to future developments and decision-making that may directly affect Adult individuals aged 18 to 40 who are diagnosed with ADHD (Polit & Beck, 2010). A well-designed study, which provides explicit demographic information and clear detailed information, makes it easier for other researchers to replicate the study or to use the data to confirm their own findings. Without those elements in place the study may not be generalizable or transferable to the general ADHD population (Hathaway, 1995).

**Delimitations.** This study focused on the segment of the ADHD population that falls between the ages of 18 and 40. Both males and females were invited to participate. Aside from the age group, this research was open to individuals living in the Southern California region and areas near this location. Additionally, to obtain the most generalizable data possible, this researcher outlined clear and specific guidelines of which comorbid conditions would disqualify an individual from participating in this study, such as intellectual disabilities (Kube, Petersen, & Palmer, 2002).

Another delimitation of the study was regarding access to the information. Eligible participants had to speak either English or Spanish, as these are the languages this researcher can communicate in. Potential participants also needed to have access to e-mail and be willing and able to meet this researcher at a mutually agreed upon designated location.

#### Summary

ADHD is a condition that affects both young and old throughout the world. The United States has seen a 3.9 million increase in the number of children diagnosed with the disorder since 2003 ("Key Findings...," 2017). Although not considered a learning disability, this condition interferes with the academic achievement of many students diagnosed with ADHD (Barkley, 2002). Once believed to be a childhood disorder, ADHD is now identified as a condition that affects people of all ages and backgrounds (Barkley, 2002; Brassett-Grundy & Butler, 2004).

Studies have shown that many individuals afflicted by ADHD continue to struggle into their adult years, and the limitations this condition may place on them puts them at risk not just academically, but in the workplace as well (Brassett-Grundy & Butler, 2004). Investigators, such as Barkley (2002) found that life activities, such as driving and dealing with social situations, may be significantly impaired in individuals with ADHD.

The effects of ADHD impact not only the individual experiencing it but also those people who encounter them. The characteristics associated with this condition—hyperactivity, impulsivity, and inattention—make it difficult for some individuals with ADHD to manage daily routines and meet classroom expectations (Harazni & Alkaissi, 2016). The outcome of these struggles may be seen in a failure to complete high school studies or pursue a college education. Furthermore, it may also affect the individual's ability to sustain a job and positively interact with their peers. Although this is not a new condition, there are still many unanswered questions about the work performance of individuals with ADHD and the transition needs of adolescents and young adults as they move from one stage to the other (Barkley, 2002).

With a transformative framework (Creswell & Poth, 2018; Mertens, 2007) as the lens for this investigation, the researcher explored the various aspects that come into play and significantly contribute to the individual with ADHD's success or failure both in school and work environments. It was also important for this researcher to consider not just the impact the various entities or factors have on the individual with ADHD, but also how the individual influences the factors (Rosa & Tudge, 2013). Through their stories, these individuals with disabilities had the opportunity to have their voices heard and actively contribute to the improvement of support systems both in school and work environments.

Despite having average to above average intelligence, many individuals with ADHD are not achieving their highest potentials (Barkley, 2002). The research community has not yet uncovered the mysteries of these conditions that prevent individuals with ADHD from successfully completing their college education, obtaining, and maintaining jobs, and enjoying stable relationships (Fleischmann & Miller, 2012; Glutting et al., 2005). One positive that research has been able to show is that individuals who are more knowledgeable about their

ADHD and actively seek solutions have better outcomes than those that either has not been identified as having the condition or are not well informed (Fleischman & Miller, 2012).

This study explored the barriers encountered by adults with ADHD aged 18 to 40 and what strategies they assert have been most useful as they go about their daily activities. This study investigated the impact of key relationships in the life of these individuals. Through rich and meaningful conversation, this researcher built upon the current knowledge and understanding of the needs, perspectives, and challenges individuals with ADHD ages 18 to 40 have experienced. Learning about their challenges and how they overcome them may help institutions build systems that are more responsive to the needs of those with ADHD and thus, contribute to a higher rate of success at all levels of society.

Today, there is an increase in the number of students identified with ADHD who attend college. Despite this increase, the overall number of students with this condition entering college is still a small percentage, between 2% and 8% (Dupaul, Weyandt, O'Dell, & Varejao, 2009), and many of them struggle as they try to make it through their college years or drop out of school (Green & Rabiner, 2012; Glutting et al., 2005). As with any research, this study had limitations; however, the information obtained will help build on the current findings and may become the basis for further areas of investigation.

Chapter 2 provides a review of literature related to ADHD such as identification of characteristics related to attention deficit disorder and their significance in the life of both young and old individuals who experience them. Chapter 3 covers the relevance of conducting this qualitative research study. The chapter offers a quick overview of the many areas in the life of an individual with ADHD that may be negatively affected such as poor school achievement, difficult personal relations, and work-related difficulty in addition to potssible problems with the

justice system due to substance abuse. Chapter 4 gives an analysis of the interview findings and identifies the major themes and subthemes. It provides detailed information about the study participants, the process used to analyze the data and the major findings. Chapter 5 indicates the conclusions and recommendations, including strategies, tools, and accommodations.

#### **Chapter 2: Literature Review**

This chapter presents a selected review of relevant literature related to the different school and work-life experiences of young adults with ADHD, a condition that affects millions of children, and which we now know continues to affect many of them into adulthood. ADHD includes several characteristics, such as difficulty sustaining attention, impulsivity, and hyperactivity, and it often manifests with comorbid conditions (Barkley, 2002; Guldberg-Kjär et al., 2012).

#### **Introduction to the Literature Review**

Inattention, impulsivity, and hyperactivity may look different depending on the situation or the individual (Barkley, 2002). For example, inattention might be students or employees who are unable to persevere when they encounter a problem, or it might be an individual who finds it difficult to stay on task and loses focus easily, finding it difficult to complete school or work assignments. For another individual, inattention might manifest in the form of poor organization.

Impulsivity is an action without considering consequences. In a classroom situation, a typical manifestation of this behavior is that the individual calls out answers without giving others an opportunity to answer or without waiting for the appropriate moment to respond. Another manifestation might be in the form of impulse buying, which is where people see something and buy it without considering the long-term commitment or budgetary restrictions. Although any of these characteristics can be exhibited by individuals without a diagnosis of ADHD at one time or another, it is the persistent and sustained difficulty that interferes with an individual's daily life activities that may lead professionals, such as a doctor or psychologist, to diagnose an individual with ADHD (American Psychiatric Association, 2013).

Hyperactivity is the excessive need for movement. It may be represented by those individuals who constantly tap their feet or tap a pen while working on a task or waiting. Hyperactivity might also be seen in the individual who constantly talks out of turn and does not give others an opportunity to speak or in those people who are not able to recognize that another person is not interested in what they are saying and continue talking none the less (American Psychiatric Association, 2013).

**Context.** Research by Barkley (2002) found that up to 50% of children with ADHD will continue to show symptoms across their lifespans. According to Asherson et al. (2012), "Some adults with ADHD may appear to function well. However, they may expend excessive amounts of energy to overcome impairments, and they may be distressed by ongoing symptoms such as restlessness, mood instability, and low self-esteem" (p. 20S). These symptoms may interfere with their ability to succeed in their college studies, their professional lives and also within their family units.

Although children with ADHD experience many struggles due to their various ADHD symptoms, for adults the consequences are more severe as they may find themselves unable to keep up with higher education requirements and drop out of college, which will limit their income and job opportunities or for those in the workforce they may experience struggles with coworkers, inability to fulfill job requirements, which may lead to disciplinary actions, or even loss of their job. For many, the consequences can be even harsher. They may find themselves involved in situations that lead to problems within the criminal justice system due to substance abuse or violence (Barkley, 2002).

Kessler et al. (2006) identified that ADHD affects approximately 4.4% of the United States population. According to Fleischmann and Miller (2012), an adult with ADHD may

experience difficulties in several areas, including poor ability to persist toward a desired goal, difficulty resisting distractions as they try to focus on a task, short-term working memory problems, impulsive decision-making, verbal communications, and emotional behaviors Because the findings are recent, there is limited research aimed at learning about the school and work experiences of adults aged 18 to 40 with ADHD (Eklund et al., 2016), and even more limited are studies that consider predictors and individual differences associated with decreased academic attainment and lack of success at work (Kuriyan et al., 2013).

Although ADHD symptoms manifest differently in adults than in children, the consequences for the lack of identification and treatment are more detrimental for adults than those experienced by children with ADHD (Fleischman & Miller, 2012). In adults, ADHD may manifest in different ways like frequent tardiness, lack of organization, inability to complete projects in a timely manner, or making impulsive comments that lead to interpersonal problems in the workplace, and may lead to dismissal from the workplace, or an inability to enter the workplace (Harpin, 2005). If manifested in the school environment, the individual may end up opting out of college or university education because of the level of difficulty in keeping up with the rigorous requirements (Fleischmann & Miller, 2012). According to Barkley et al. (2007), the academic levels achieved by adults with ADHD are lower than those attained by their non-ADHD peers.

Individuals with ADHD are also more likely to suffer from mental or substance abuse disorders. The following data is a partial list of comorbid conditions identified in individuals with ADHD (Kessler et al., 2006): In the Kessler et al. study, alcohol dependence occurred in 5.8% of the respondents with ADHD and only in 2% of the non-ADHD respondents. In another statistic 4.4% of the respondents with ADHD reported drug dependence, and only 0.6% of the

non-ADHD respondents reported such. As it relates to Bipolar disorder, 19.4% of the ADHD group had the disorder versus only 3.1% of the non-ADHD group. By far the most significant statistic is that of anxiety disorder, which was reported by 47.1% of the ADHD group and 19.5% of non-ADHD.

Pertaining to academic performance, both inattentive and hyperactive-impulsive behavior experienced by individuals with ADHD seem to be significant factors in attaining lower school achievement. Students with ADHD often experience poor teacher perception and low school achievement, meaning they receive lower grades, more suspensions, and retentions than their non-ADHD peers (Fletcher & Wolfe, 2009; Loe & Feldman, 2007). As they enter their adult years, having fewer educational achievements limits these individuals' work opportunities. These same factors may limit, not just their academic interactions, but also their social interactions, making them more vulnerable to exhibiting poor judgment and an inability to measure the consequences of engaging in risky behaviors as they approach their teenage and young adult years (Fletcher & Wolfe, 2009).

Individuals with ADHD may be difficult to manage, starting at an incredibly early age. Their problematic behavior and poor social skills often affect their family and community relations. The struggle often begins in the family unit. For example, parents of adolescents and young adults diagnosed with ADHD in childhood are more at risk for divorce than those parents of children without ADHD (Wymbs et al., 2008). As these children with ADHD move into adolescence, if they persistently struggle both socially and academically, they are at a higher risk of participating in criminal activity due to various characteristics associated with the disorder (Barkley, 2002). Also, due to the higher rates of suspension and expulsion from school and of

divorce within their family unit, they are more vulnerable and often have limited family support (Wymbs et al., 2008).

Results from studies assert that "ADHD is commonly found in [juvenile/criminal] offender populations" (Pratt et al., 2002, p. 354). In people with ADHD, the factors identified as critical regarding criminal activity are their lack of self-control and their inattentiveness (Fletcher & Wolfe, 2009; Wymbs et al., 2008). Although lack of self-control and anti-social behavior in individuals with ADHD are often attributed to poor parenting and lack of structure, research shows that these characteristics may have more of a genetic or biological origin and are existent independently of parenting styles or other outside factors (Pratt et al., 2002).

Researchers Guldberg-Kjär and colleagues (2012) conducted a study in Sweden involving 1,599 adults aged 65 to 80 who self-identified as having ADHD. The study findings are important because they provide a window into ADHD throughout lifespans. The researchers suggest that even older adults should be tested, because they may also benefit from learning about their condition and be able to experience relief of symptoms if given the appropriate health advice, strategies and supports.

It is important to note, that despite the glim statistics presented, the overall outlook for individuals with ADHD is not all negative. Given the necessary supports, there are certain characteristics associated with the disorder that can prove positive if channeled appropriately and are exhibited in the right setting. Additionally, it is also important to emphasize that there are different levels of severity: mild, moderate, and severe. Thus, not everyone with ADHD will experience the most severe form of this condition and its related possible negative outcomes. Another factor to consider in the outcome for individuals with ADHD is proper diagnosis and the use of medication when appropriate. There are those individuals who learn to compensate for

their areas of difficulty and find a way to work around their substantial challenges (Fleischmann & Miller, 2012).

The perception adults have about their ADHD is an important factor in whether they can find the right compensatory strategies (Fleischmann & Miller, 2012). Adults who perceive their ADHD as a special gift instead of a disability have a higher potential for having a rewarding career. Those who are informed about their disability and seek academic supports experience more positive outcomes during their post-secondary period of education (Fleischmann & Miller, 2012; Meaux et al., 2009).

The characteristics associated with having ADHD were identified in a study conducted by the University of Vaasa as factors that contribute to an individual selecting entrepreneurship instead of paid employment as a career choice. The research findings indicate that certain personality traits in people with ADHD make these individuals more inclined toward entrepreneurship (Dimic & Orlov, 2014). Their early childhood struggles with traditional school systems, a natural tendency for hyperactivity, great creativity, need for independence, ability to take risks, and a tendency to underachieve or have difficulty in maintaining employment despite the need for earning wages all contribute to the pursuit of self-employment (Barkley et al., 2006).

When looking at the wide range of research related to individuals with ADHD, it becomes evident that there is a great deal of literature related to children with ADHD, but there is a need for more qualitative and specifically phenomenological research related to the experiences of adults aged 18 to 40 with ADHD (Fleischmann & Miller, 2012). There is a limited amount of research related to the life experiences of adults within this age group, their use of compensatory strategies, and their use of medication (Fleischmann & Miller, 2012; Glutting et al., 2005). "By recognizing his or her value and unique traits, a person with ADHD

may do well" (Fleischmann & Miller, 2012, p. 52) instead of feeling shameful or defective. A person with ADHD is not only capable of coping with their ADHD, but he or she may even find advantages in some of their personal characteristics, such as their abundant energy (Fleischmann & Miller, 2012).

The narratives analyzed by Fleischman and Miller (2012) found that individuals diagnosed with ADHD use more positive words to describe themselves, such as creative and energetic, while those who experienced difficulties related to ADHD but had not been formally diagnosed, use negative words to describe themselves, such as maladjusted or lazy. "Once the narrators learned about their ADHD, their self-perceptions changed" (p. 54). Currently, the ADHD population is not the focus of many studies, and many of them struggle without supports in place to help them through this challenging transition time.

#### **Organization of Chapter**

The next section of this chapter covers the conceptual framework, which forms the basis for this research. The following section is the topic relevance, which explains the importance of conducting this research. The third section is the literature review, which provides information about major areas of relevance associated with ADHD. Section four contains the methodology for this study, which details the advantages and disadvantages of the various methods and the ethical issues associated with each method discussed. The fifth section is a review of methodological issues and discusses the reason this researcher decided to conduct a qualitative study versus quantitative or mixed methods approach. It also presents the study questions. Section six gives the synthesis of the research findings by looking at common elements within the existing research, generalizations, limitations, or conflicts, and enumerates possible future areas of research. The seventh section is a critique of previous research. It looks at previous

research and the validity and accuracy of the existing research findings. Section eight is the chapter summary, which reviews key points covered within this chapter and explores questions that still need to be answered.

### **Conceptual Framework**

**Theory.** The transformative framework is one that seeks information and insight that can bring about positive changes in society (Creswell & Poth, 2018; Merriam & Tisdell, 2016). In this study, this researcher sought to learn more about the lives of adults aged 18 to 40 diagnosed with ADHD. It was the aim of this researcher to contribute to the existing body of research. Participants were given a voice through participation in this study, with the aim of contributing recommendations for positive changes both at the academic level and the workplace level as suggested by Creswell and Poth (2018).

The transformative framework places emphasis on marginalized groups. Individuals with ADHD may be academically and socially marginalized due to their difficulty with social interactions and academic challenges (Mertens, 2007). This framework aimed to bring about positive changes and to provide a voice for marginalized adults with ADHD. The researcher and the participants in this study co-created finding as participants' stories were discussed. Multiple ways or perspectives of dealing with ADHD condition were discussed.

Although the transformative framework was the backbone of this study, there were two additional theories that also contributed to this study. Bronfenbrenner's theory of human development is based on the understanding that the environment and the person interact and affect one another. The individual with ADHD, through their actions, obtain a reaction and affect those that they encounter such as family members, school personnel, and the community at large (Rosa & Tudge, 2013). The third theory is the disability theory, which looks at an

individual's disability as part of what makes the person who he or she is instead of an area of disability.

Looking at ADHD through the previously mentioned lenses, society has the responsibility to find the means to integrate these individuals as much as possible into our systems such as the school and work settings. Researchers working with this mindset have contributed new strategies, technological tools, and policies that help marginalized individuals function more easily and effectively within their environment. Although there have been advancements that have provided strategies that allow individuals with ADHD greater opportunities, there is still more to be done to help those who are struggling to gain improved opportunities for better outcomes both academically and in the workplace.

#### **Topic Relevance**

More students diagnosed with ADHD are attending college (Glutting et al., 2005). "College students with ADHD may constitute a distinct subset of individuals with the disorder" (p. 44). This group of students represents a minority of students in college, as only 1% to 4% of students in college have been diagnosed with ADHD (DuPaul et al., 2000). Unlike other students with ADHD, this group experiences a greater level of academic success, both in elementary and secondary school—enough to successfully be admitted to college. They have better compensatory skills and higher ability levels. More importantly, students with ADHD successfully adjust to the demands that a college education imposes upon them (Glutting et al., 2005).

Despite the increase in the number of students with ADHD at the college level, only three studies have focused on the college population at the time of the Glutting et al. (2005) study. As

these researchers argued, there is a need for duplication and extension of their findings to better serve this population of students.

# **Review of Research Literature**

This section discusses some of the most relevant conditions associated with ADHD. The conditions included in this review are not exhaustive but rather include comorbid conditions that happen most frequently in conjunction with ADHD such as conduct disorder (CD); oppositional defiance disorder (ODD), anxiety, depression, and learning disabilities. Memory difficulties are another common problem that affects individuals with ADHD. Other factors explored are parent, teacher, and society's perceptions of ADHD. Additionally, this researcher looked at a multidisciplinary team approach as an effective way in which to address this complex condition that affects so many individuals.

**Comorbidity and other factors associated with ADHD.** An individual with ADHD not only has to overcome the challenges associated with ADHD, but too often it is accompanied by other conditions that confound the difficulty to cope with behaviors associated with this condition (Barkley & Murphy, 2007). This combination is referred to as *comorbidity*, which means that an individual has two or more conditions or illnesses interacting together at the same time or one right after the other (Klein & Mannuzza, 2010; NIDA, 2012). "Knowledge of comorbidity justifies efforts to identify common risk factors and causes, and fosters improved diagnostic classification by making distinctions within a disorder when it is comorbid and when it is not" (Klein & Mannuzza, 2010, p. 127).

CD and ODD are often comorbid conditions to ADHD and often they persist into the individual's adult years (American Psychiatric Association, 2013; Lin & Gau, 2017). The presence of these disorders increases the risk of many other conditions as a child moves into

adolescence and into adulthood. Some of the risks include academic difficulties; antisocial behaviors, substance abuse, and engaging in unsafe sexual conduct at an earlier age (Lin & Gau, 2017).

ODD impacts the child's interaction with adults and other children. This disorder affects an individual's disposition for complying with requests from figures of authority, such as a teacher or boss (Lin & Gau, 2017). Individuals with ADHD have a higher likelihood of developing antisocial personality disorder, which may develop into CD in adolescence and continue as they move into adulthood. These ADHD comorbid disorders increase the probability of the individual experiencing interpersonal conflict, elevated school and job failure, peer rejection, and a higher probability of incurring a life of crime. These frequently overlapping disorders may impair the individual socially, academically, and occupationally (American Psychiatric Association, 2013).

In general, all the comorbid conditions identified increase the level of difficulty either a student or a worker may experience in trying to meet the expectations and requirements associated with schoolwork or job-related activities. Based on the specific symptoms identified in the DSM-5, the various conditions could cause an individual to experience poor attention to tasks, extreme worry, lack of concentration, and mood swings, which may include severe irritability, or anger, or the use of drugs and alcohol; all of which would affect and interfere with an individual's ability to effectively function or perform normal life activities (American Psychiatric Association, 2013).

The findings of a double-blind, placebo-controlled study of individuals diagnosed with ADHD revealed that 45% have a significant number of symptoms of ODD (Reimherr et al., 2007). Another study conducted by De Graaf et al. (2008) screened 3,199 subjects, aged 18 to

44. This sample representative of the United States population reveals the following conditions as the eight most frequent disorders found in conjunction with ADHD: 47.1% of the participants have anxiety disorders, 38.3% have a mood disorder, 29.3% experience a social phobia, 22.7% have a specific phobia, 19.6% suffer from intermittent explosive disorder, 19.4% have bipolar disorder, 18.6% have major depressive disorder, and 15.2% have some form of substance abuse disorder. All these conditions confound the great difficulties already associated with having ADHD, such as experiencing hyperactivity; impulsivity and inattention, which represents a significant challenge to achieving academically and in the workplace on their own. Additionally, they are significant because even though they occur concurrently, the treatment approach will vary depending on the combination of conditions to obtain the best results (American Psychiatric Association, 2013; Barkley et al., 2006).

Comorbidity of learning disabilities is common in children and adults with ADHD (Barkley et al., 2006; Kube et al., 2002). According to the Learning Disabilities Association of America, learning disabilities are neurologically-based processing problems that stand in the way of acquiring the necessary skills needed for reading, writing, or solving math-related problems. Additionally, learning disabilities can also affect other areas such as organization, memory, and attention. For that reason, the impact of learning disabilities goes beyond the academic areas into everyday activities, including the development of close personal relations, family relations, and eventually the workplace. The Learning Disabilities Association of America identifies that anywhere from 30% to 50% of children with ADHD also have a learning disability, and combined, these disorders make learning very challenging ("Types of Learning Disabilities," 2017).

Understanding the comorbidity factor in individuals with ADHD is important to take into account, as studies show that comorbidity tends to be the norm not the exception. Taking these conditions into account means finding better and more effective solutions for the whole individual (Barkley & Murphy, 2007).

*Memory.* Memory-related difficulties are associated with ADHD as well as associated comorbid conditions. A study by Lin and Gau's (2017) was important although it has various limitations. The study identified working memory and spatial short-term memory as common impairments amongst three disorders: ADHD, ODD, and CD. The significance of the results is important because it supports the findings of other researchers, which have found that working memory and spatial short-term memory also have a direct impact on both reading and math achievement (Bull, Espy, & Wiebe, 2008).

A longitudinal study found strong evidence that poor working memory limits a child's capacity for acquiring skills and thriving during their early years of formal education (Gathercole, Tiffany, Briscoe, & Thorn, 2005). The study by Bull et al. (2008) showed that visual short-term memory span and visual-spatial working memory are predictive of math achievement and short-term memory capacity and both verbal- and visual-spatial are predictive of reading achievement. Due to these impairments, "Children [and adults] may fail to meet the routine demands of many structured learning activities in the classroom, resulting in missed opportunities to learn and practice skills and achieve normal incremental progress in complex skill domains" (p. 12).

Lin and Gau (2017) also found that ADHD, although exhibited in conjunction with CD, is likely a separate condition that requires a separate treatment. But ADHD in combination with ODD appears to be closely related, and Lin and Gau (2017) indicated that ODD might be a more

severe form of ADHD. More research and duplication of their findings are necessary to verify the connection between these disorders.

As previously stated, these three conditions place limitations on working and short-term memory. Understanding and differentiating between these disorders and how they interact would make it possible to tailor interventions to an individual's needs, thus improving their ability to work around their areas of difficulty. One example would be the way the mind approaches a mathematical problem when expressed vertically, horizontally, or as a word problem. Depending on which condition is directly associated with an individual, it would be possible to determine which type of memory deficiency they experience so that mathematical problems are presented in such a way that individuals can best utilize their areas of strength instead of struggling using their areas of weaker cognitive abilities (Bull et al., 2008).

*Perceptions of ADHD.* There is limited research aimed at exploring the caregiving experiences of the parents of children diagnosed with ADHD. The perceptions of parents of children with ADHD are similar around the world as the various studies show. Families have all shared experiences of complex relationships within the family unit not just with parents, but also with siblings and extended family (Chien, Ho, & Wang, 2011; Chronis, Chacko, Fabiano, Wymbs, & Pelham, 2004; Gharibi & Gholizadeh, 2011).

*Parents' perceptions.* Chien et al. (2011) identified the great need for parent education related to ADHD to reduce the high level of stress and anxiety experienced by parents of children and adolescents with ADHD. The findings in a study by Chronis et al. (2004) identified similar characteristics associated with parenting a child with ADHD as were then also identified by the Chien et al. (2011) study. Both studies found that parents of children with ADHD report that parenting their children is a challenging task. These parents often are ashamed of their

inability to control their child's behavior. They are made to feel inadequate, guilty, helpless, and full of self-blame. Some parents full of anxiety and might even suffer from depression. To add to the complexity, these parents often lack understanding and are confused about the medical terminology related to this condition. These parents feel uneasy about treatment options, especially the use of medication.

Although ADHD is now identified as a long-term, chronic condition, the support available is only for parenting training sessions of approximately eight weeks. This leaves great gaps and interferes with maintaining a consistent system that will carry the family through transition periods, such as issues with adolescent autonomy (Chronis et al., 2004).

An international study by Gharibi and Gholizadeh (2011) mirrored the Chronis et al. (2004) and Chien et al. (2011) studies and added that a family with a child with ADHD often experiences disorderliness and a great deal of conflict, not just between the ADHD child and the parents, but also his or her siblings. According to the researchers, the increased pressure in the family unit makes the possibility of divorce higher for these families, as husbands blame the mothers instead of providing support. Additionally, the family feels isolated because extended family members often reject the child with ADHD and so do peers in the school setting.

Given the challenging behaviors exhibited by children with ADHD, the level of frustration in their parents is high, while their level of tolerance is low (Hadianfard, 2014). The relationship between parents and ADHD children is an important factor as the child develops into early adulthood. Maltreatment of an ADHD child leads to a significant increase in the risk of adverse outcomes due to antisocial behavior (De Sanctis, Nomura, Newcorn, & Halperin, 2012). Hadianfard's (2014) findings revealed that physical abuse, neglect, and psychological abuse are significantly higher in children with ADHD than in children who participated in the control group. Such findings indicate a great need for better parent education regarding effective ways to manage an ADHD child.

*Teachers' perceptions.* The perception of teachers regarding interaction with students diagnosed with ADHD is limited (Greene, Beszterczey, Katzenstein, Park, & Goring, 2002). The Greene et al. study took place at an elementary school with the findings based on the interaction of students with an average age group of 8 comprised of mostly boys. All participants attended a suburban school in the Boston area. The investigators conducted classroom observations and collected data through a teacher scale. Their findings confirmed that teachers attest that teaching students with ADHD is significantly more stressful than teaching their non-ADHD peers. Greene et al asserted that a factor possibly contributing to the teachers' level of stress includes teacher-student incompatibility. Students who exhibit oppositional behavior are described by teachers as more challenging to teach than those without oppositional behaviors.

*Society's perception.* Society moves between believing that ADHD is not a medical condition because no medical markers have been identified (Visser et al., 2014) and believing that ADHD is an epidemic that needs to be controlled. In general, however, society has a negative perception of individuals with ADHD. There are many areas of controversy referring to ADHD beginning with how it is diagnosed, including if medication is an effective treatment and how effective education programs are at helping individuals with this condition. Groups and individuals often disagree on what is the best approach to treating ADHD, which contributes to the perception of ADHD being an undesirable condition (Hawthorne, 2010).

Hawthorne (2010) explained that due to the wide range of areas that ADHD impacts, there are many entities interested in finding a viable solution to help individuals with ADHD

manage the symptoms. However, there is much controversy that surrounds this condition. There are those who still argue that ADHD is not a real condition. There is a considerable number of professionals that believe that ADHD has a biological basis, yet there are no biologically-based treatment solutions for this condition. Additionally, the researcher noted that there are those individuals who do not agree with using the DSM-5 criteria for diagnostic purposes because they argue that it is too simplistic given the many factors involved in this disorder. For these and other reasons, finding effective solutions is not a simple endeavor.

The tendency for individuals with ADHD to have comorbid conditions adds to an already negative perception about this complex disorder (Barkley & Murphy, 2007; Hawthorne, 2010). These factors combined simultaneously, along with scientific study and social influence; reinforce the perception that ADHD is an undesirable condition that requires treatment (Harpin, 2005; Hawthorne, 2010). Hawthorne's (2010) study supports the findings of Barkley and colleagues (2002, 2006, & 2007) that the behaviors and characteristics of people with ADHD lead society to perceive this condition as an undesirable disorder that affects an individual's life in a negative way and needs to be identified and treated quickly and effectively at the earliest age possible to improve the outcomes for individuals affected by this disorder.

Multidisciplinary model. The effect of ADHD is felt everywhere, even across generations. Given the significant effects ADHD has on individuals, families, and society, multi-agency coordination of services and supports for this population is imperative. Additionally, healthcare professionals have a responsibility to support, through pertinent information and guidance, for the affected individuals and their families (Harpin, 2005).

As society learns more about the wide range of impact ADHD has on individuals and indirectly in the communities where those afflicted by the condition live, more emphasis is

placed on finding effective solutions for overcoming or compensating the negative aspects of ADHD. Governmental agencies and private entities must work together to find better approaches to the identification and treatment of individuals with ADHD (Barkley & Murphy, 2007; Hawthorne, 2010). Given that there is no single independent tool for diagnosing ADHD and that comorbid conditions add to the complexity of diagnosing and treating ADHD, it is of utmost importance to obtain feedback from individuals representative of different fields who are able to look at the condition from different perspectives and come together to compare findings and analyze the data in a holistic manner in order to find the best possible solutions and reduce the risk of negative outcomes (Chien et al., 2011; Gualtieri & Johnson, 2005).

It is important to gain as much information about the symptoms the child or adult with ADHD is experiencing, but even more important is trying to arrive at the root of the difficulties. There are too many factors that can affect the behavior of an individual that simulate ADHD, so it is important to look at ADHD from as many angles as possible and rule out all alternative sources of difficulty or deficiency. Danciu (2011) suggested that integrating the collaboration of strategic professionals to address ADHD would result in more appropriate and effective interventions.

Multidisciplinary teams focused on helping individuals with ADHD are also being considered in areas outside of the academic and medical fields, such as the judicial system. Leone's (2002) study was based on the public health prevention model which stresses that "early identification, early after onset intervention, and intensive individualized services or aftercare within a collaborative system of prevention, treatment, and care" (p. 4). The researcher posited that the approach in the juvenile justice system is too often that of dealing with symptoms instead of looking at the root causes and providing appropriate solutions, just as it is with medical

specialists and teachers. Using a community-based approach makes it possible to address the multitude of needs of the children and the families that end up involved in the justice system. The solution to the problem is not more punitive measures, but rather more healing and proactive measures.

Today, the idea of ADHD persisting into adulthood is a recognized fact, which many researchers studied. However, despite the negative impact those with moderate to severe ADHD are known to have not just on themselves and their families, but also on the community at large, there are very few studies that have looked at the condition from the perspective of the individual experiencing the disorder. It is difficult to determine strategies and help these individuals, both academically and in the workplace, if their strengths and needs are not identified (Hamed, Kauer, & Stevens, 2015).

ADHD is neurobehavioral and complex; it is often comorbid with other complex conditions. The information gained from the various quantitative and limited qualitative studies improved the overall understanding of ADHD, but there is still a tremendous amount of work to be done to improve the poor long-term outcomes that individuals who exhibit moderate to severe ADHD characteristics may experience over their lifetimes. By gaining access to the experiences and perspectives of individuals living with this condition, the research community may gain important insight that can lead to improvements in how education is delivered, as well as possible changes in the workplace that may lead to more positive outcomes for those individuals who experience the most severe symptoms of ADHD and require additional support and greatly needed changes within the justice system (Hamed et al., 2015).

It is difficult to find solutions without having information on what individuals with ADHD perceive as challenges and what they perceive as strengths. A participant in Meaux et

al.'s (2009) qualitative study said it best, "You have to understand so that you can cope, and you know, work around it" (p. 250). Only by understanding the impact of this disorder from the point of view of the affected individual can viable solutions be arrived at. The benefits of getting the individual's perspective may not just impact the individual, but also that person's family, and society at large (Hamed et al., 2015).

Children and youth affected by cognitive and behavioral disabilities experience many challenges and require many services that are available to them but are not always easy to reach because access to services is fragmented. A collaborative study conducted by nine different government agencies, including the Office of Correctional Education, the Office of Special Education and Rehabilitative Services, the U.S. Department of Justice, and the Office of Vocational and Adult Education joined forces to identify more effective alternatives for addressing the needs of high-risk students such as those with ADHD (Leone, 2002). One of the most detrimental possible outcomes for youth affected by ADHD is falling into a life of delinquency. In terms of school, these adolescents get suspended or expelled from their schools for offenses such as bringing a knife to school, the use of illegal substances, or other similar activities, and they end up in juvenile hall. Once youth fall into a life of delinquency, it is difficult for them to reintegrate into society and return to school. Without education to fall back on and with a history of criminal activity, they find themselves struggling to find employment, and they may become a burden to their families and society. Even if they find a job, their poor social skills make it difficult for them to maintain it (Harpin, 2005).

In the United States and many other countries, the solution to juvenile delinquency is still a punitive and reactive approach despite evidence to the lack of effectiveness of such measures. Many of these adolescents receive a life sentence and fall into a circle of failure that it is difficult

to break out of instead of receiving specialized interventions that will ensure they will not return to a life of crime, but instead will become viable members of society (Leone, 2002).

A different, more proactive approach based on better education in all areas of society starting with the parents, teachers, doctors, and continuing to the legal system, would create a safety net that may help individuals experiencing moderate to severe ADHD symptoms achieve positive life outcomes instead of becoming marginalized members of society. By understanding their needs, environmental changes can be made both at school and work sites that may help more individuals with ADHD achieve higher levels of education with less of a struggle (Meaux et al., 2009).

Leone (2002) found that a more effective approach entailed collaboration amongst a variety of organizations, such as Child Welfare and Recreation Services, the Department of Education, the Mental Health Department, and the Juvenile Justice Department. The researcher argued that when these agencies work together, they can support not only the youth but also their families and their communities every step of the way, not just on a temporary basis. The old proverb, "It takes a village to raise a child," proves to be true when dealing with an ADHD child.

Given that a large percentage of youth with cognitive and behavioral disabilities, such as those with ADHD, find themselves in the juvenile court system, this multidisciplinary proactive approach is key to minimizing or preventing negative outcomes from taking place and providing these youth with the greatest support possible so that they can successfully navigate through their high school and postsecondary school years and become productive adults instead of individuals that take from or become a source of fear in their communities (Leone, 2002; Meaux et al., 2009).

Proactive, preventive approaches provide the best results. Such a system identifies the target population and establishes clear objectives for services. The various organizations previously mentioned work with youth and their families to find solutions. Through the youth and their families' participation in these programs, the service providers can identify appropriate additional services that address the needs of the individual with ADHD. The various entities that provide support to individuals with ADHD establish a comprehensive collection of targeted services that meet the needs of the targeted group. All supports are then managed through a case manager whose job is to advocate and connect the family and youth to the appropriate resources (Leone, 2002).

Danciu (2011) conducted a study that also focuses on a multidisciplinary approach, but the emphasis of the study was helping students with ADHD at the elementary school level. The researcher's team was comprised of specialists, parents, medical professionals, teachers, and social workers. They understood ADHD to be a chronic neurobiological disorder characterized by the degree of inattention as demonstrated by the lack of concentration and high distractibility, whose symptoms may result in long-term difficulties as it relates to a child's ability to learn and have a good relationship with others. These challenging experiences during a child's early school years may later result in a child developing poor self-image and even depression. Danciu concluded that given the prevalence of ADHD among school children, there is a need to find quick, effective solutions. Not doing so may lead to serious social, educational, or professional nonconformities as these children move into their adolescent and adult years.

Danciu's (2011) study took place over a period of 18 months and includes students and their parents from eight elementary schools. It revealed that following a set of strategic interventions in both in school and home environments lead to the most effective results. By

working together to modify a child's environment and maintaining stable and predictable expectations, students can achieve significant results. The researcher argued that there are three specific strategies found to be the most effective at the school level: modifying and adapting the classroom environment, adapting the school tasks for ADHD children to their level of performance, and permanent use of feedback during task performance.

# **Review of Methodological Literature**

Both qualitative and quantitative research methods have been utilized by researchers investigating the factors associated with ADHD and affecting individuals with ADHD. A quantitative study by Loe and Feldman (2007) cited several studies to support their findings and recommendations using the International Classification of Functioning, Disability, and Health (ICF) model (see Appendix J) as the conceptual model applied to school functioning in children with ADHD to give their findings wider applicability. One of the studies used was a study by LeFever, Villers, Morrow, and Vaughn (2002), which was conducted at a representative elementary school from a school district in southeastern Virginia. In the study, data extracted from parent reports were examined to determine educational outcomes for the children. The data revealed that 17% of students are diagnosed with ADHD, and 84% of the diagnosed students are medicated. One of the most significant findings of the study confirmed that students identified with ADHD end up in special education programs three to seven times more often than other students. The researchers noted that students with ADHD are also more likely to be suspended or repeat a grade. Additionally, the study shows that even when services are targeted to an ADHD child, these students continue to have a strong association with poor educational outcomes.

Perhaps the most relevant recommendation born from the Loe and Feldman (2007) study is the concept of taking the blame away from the child, which is the traditional approach and considering environment-based solutions. The specific areas of modification based on the research findings include smaller class size; distraction reduction; implementation of strategic targeted intervention strategies; increased physical activity; the use of alternative discipline approaches; a change in the academic system that would include better teacher education, greater collaboration between schools, parents, administrators, and health professionals; and consistent tracking of student outcomes.

A qualitative study by Firmin and Phillips (2009) aimed to replicate Segal's (1998) study of 17 Canadian families with children diagnosed with ADHD. Firmin and Phillips interviewed 17 American families that were members of the national support group for children and adults with ADHD. The purpose of the study was the same as the original study: to learn about the challenges the parents encountered while parenting their ADHD children. To be eligible to participate in this study, the children had to meet the DSM diagnostic criteria and be raised by the parents that participated in the interview. The study used an open-ended interview process.

One of the areas explored was the level of involvement of the parents of children with ADHD and the impact that parent involvement has on the academic outcomes of these ADHD students. Three main themes developed from Firmin and Phillips' (2009) study. Most of the findings supported previous research findings from Segal's (1998) study. First, the parents of these children are aware of their children's needs and are actively involved in finding solutions and advocating for their children. Second, the results of the new study and those of the 1998 study had a lot in common. The only difference between the 1998 study and the 2009 study results was that the parents interviewed identified the evening as the toughest time of the day for

the non-control group instead of the morning. Third, the strategies that parents reported being the most effective involved creating routines and building a consistent structure in the home environment. The most relevant information was that the higher level of parent involvement in the lives of children with ADHD and the parents' level of understanding of ADHD make a positive impact on their children's ability to succeed academically and socially.

Parents who participated in Firmin and Phillips' (2009) study shared their understanding of ADHD. They also could provide specific examples of the symptoms or characteristics exhibited by their child. The parents also shared the struggles in areas such as organization and homework completion and their successes when setting up structures and rewards for their children, such as creating a sticker chart. The parents all agreed that for children with ADHD there is no automatic routine. Rather, the parents need to provide a structured way to remember important things and events and organize themselves and their child. Ultimately, each family should identify their own needs and set up a structure that works according to their personal needs. The researchers posited that their findings contribute to new strategies and a better understanding of what elements improve outcomes for students with ADHD.

**ADHD:** The debate. Even though there has been much research dedicated to ADHD, there are still professionals that question ADHD as a true medical disorder. Scientists have not been able to provide an objective and consistent means to positively diagnose ADHD through recognized tests such as a blood sample or another conclusive universal test (Visser & Jehan, 2009). Additionally, scientists cannot agree on the origin of ADHD. Some believe that this disorder has a genetic origin (Faraone, 2005; Faraone et al., 1995), while others would argue that the origin is in the frontal cortex of the brain (Barkley, 2014). Researchers such as Tait (2001) argued that the real answer whether ADHD is a true disorder lies in the social context in which

that determination is made, and that in science there is no absolute truth; rather, in science, an answer is only true until the information is disproved or more facts are learned about a condition.

The second contributing fact to the debate is that ADHD is currently identified through subjective means such as the symptoms matched to the DSM-5 criteria, which are born from observations by medical professionals, parents, teachers, employers, or other individuals close to the person being diagnosed (Senior, 2009). Although the American Medical Association and other entities provide guidelines and recommendations for best practices in the diagnosis of ADHD, which include various measures, those guidelines are not easy to follow. Most family practitioners do not follow them because of their complexity and the fact that they are timeconsuming measures. Instead, they follow a simplified version of the recommendation from the American Academy of Pediatrics (Gualtieri & Johnson, 2005).

Family doctors often rely on behavioral checklists or rating scales instead of using more objective measures (Gualtieri & Johnson, 2005). Additionally, as previously mentioned, ADHD is often confounded by other conditions, which makes it difficult to determine whether the hyperactivity, impulsivity, or inattention—which are the common traits of ADHD—might be a side effect of the comorbid condition or a true symptom of ADHD (Barkley et al., 2007).

The third contributing factor is the fact that although the use of psychostimulant medication temporarily and partially aids in controlling behavioral symptoms of hyperactivity and impulsivity, they do not contribute to better academic achievement. Furthermore, aside from being only partially effective, psychostimulant medication may represent a serious health threat for those individuals taking it as it is a powerful solution that may harm the health of vital organs in their body (Breggin, 1999; Ghodse, 2007).

Despite the dangerous potential side effects, many research studies, paid for by pharma companies, continue to advocate the use of this type of medication, and practitioners prescribe these medications without regard to the impact on the social well-being of the individual (Miller & Leger, 2003). Even more concerning is the fact that these ambiguities restrict conducting further research on more effective means of diagnosing and treating ADHD. Further research is necessary to learn more about ADHD from the perspective of the individual and to arrive at more concrete answers that may lead to more effective and consistent solutions (Visser & Jehan, 2009).

## **Review of Methodological Issues**

Quantitative research methods, such as surveys, interviews, longitudinal studies, or correlational studies are best suited to explore opinions, attitudes, making predictions, or examining quantifiable data that can then be generalized and used to identify patterns or to prove or disprove a hypothesis. Quantitative research answers questions such as how much, how many, how often, or to what extent. It is a scientific and objective approach to finding answers. It is also a way to determine cause and effect relationships for data best represented through charts, tables, and graphs. Quantitative research methods are objective, highly controlled, and structured. This kind of method of research requires a large random sample. The findings are precise and expressed in numbers (Merriam & Tisdell, 2016).

Qualitative research methods, such as focus groups, interviews, or observations, are used to discover, or gain a better understanding of a problem or phenomenon within society such as how people interpret their experiences in the workplace or in the school environment. This type of research aims at understanding, describing, and interpreting people's experiences. The findings of a qualitative inquiry are best represented through rich descriptive words and pictures

instead of numbers. Qualitative research typically requires a smaller number of participants, and it is more flexible than quantitative studies. On the other hand, qualitative research requires more time and involvement from the researcher, and it tends to be more subjective. The findings of a qualitative study are comprehensive, expansive, and descriptive (Merriam & Tisdell, 2016).

Mixed methods incorporate both qualitative and quantitative data as part of the same research study and bring all the data together to complement one another. By combining the two types of methods, a researcher can obtain a more comprehensive understanding or perspective of a phenomenon. By incorporating a transformative framework along with the mixed methods approach, researchers can address contemporary social issues, as well as advocacy issues, and expand on theoretical perspectives. Investigators use various instruments in their research, such as focus groups, interviews, and surveys to collect data. Mixed methods are effectively used to identify a need in society and provide a voice for those in need (Sweetman, Badiee, & Creswell, 2010).

Although researchers have used quantitative and mixed methods to explore various areas related to ADHD, this researcher selected the qualitative method based on this literature review, which indicates that there is a need for further qualitative research to explore the experiences of adults with ADHD aged 18 to 40. Only limited research is available for this age group, and it is mostly quantitative data (Eklund et al., 2016; Kuriyan et al., 2013). This researcher used interviews and personal observational notes to explore and gain a better understanding of the life experiences of individuals diagnosed with this group of adults. Using the qualitative research approach allowed this researcher the flexibility to use a small data set and to adjust the course of the research, as needed, based on the interview findings as suggested by Al-Busaidi (2008) and Creswell and Poth (2018).

The literature review shows that there is a gap in data regarding the impact of having ADHD has on the lives of adults aged 18 to 40, and that further research in this area might yield socially significant findings. Based on the information gathered through the literature review, this researcher selected to pursue a research project that focused on the main research question: "What barriers or successful strategies do individuals with ADHD encounter as they make their way through the educational system and into the workplace?" and three sub questions: "How do individuals aged 18 to 40 diagnosed with ADHD perceive their academic success or failure?" "Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was parental support a factor in their academic success or failure?" "Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was teacher support a factor in their academic success or failure?" "Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was parental support a factor in their academic success or failure?" "Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was teacher support a factor in their academic success or failure?"

## **Synthesis of Research Findings**

Five major themes emerged from the literature review. First, the identification of ADHD in most cases happens during childhood, but this condition often persists into adulthood (Barkley, 2002; Guldberg-Kjär et al., 2012). Unfortunately, many adults struggle due to their symptoms but often attribute their struggles and shortcomings to personality flaws. The fact that these adults go unidentified for having ADHD results in a lack of appropriate supports as these men and women make their way through their older adult years and continue to struggle with their *personality flaws* (Meaux et al., 2009).

Second, ADHD rarely comes as a single condition; rather comorbid conditions typically accompany it. These conditions confound an already difficult condition (Barkley & Murphy, 2007). Studies by Lin and Gau (2017) and other researchers such as Fleischmann and Miller (2012) indicate that CD and ODD are comorbid conditions often associated with ADHD.

Barkley and Murphy (2007) found that up to 35% of clinic-referred adults are comorbid for ODD and up to 25% of them are comorbid for CD. Conditions such as autism, bipolar disease, and Tourette's may also be present among many others. However, ODD and CD are particularly significant because those adolescents and adults with a comorbid condition of ADHD and ODD or CD are at heightened risk for incurring a life of crime and entering the justice system (Klein & Mannuzza, 2010). Children who exhibit antisocial and oppositional defiant behaviors are highly likely to develop a personality disorder and have antisocial personality disorder in adulthood (Mannuzza, Klein, Abikoff, & Moulton, 2004).

Third, many adults diagnosed with ADHD struggle academically, even after having achieved high enough grades in high school to attend college. Research has shown that in their younger years, ADHD students tend to be disciplined more often, and are more likely to experience more school suspensions and expulsions than their non-ADHD peers (Barkley, 2002). Researchers are consistent in identifying the academic, social, and work-related difficulties individuals with ADHD often experience as they move from childhood into adulthood. Researchers such as Barkley and colleagues (2006), Fletcher and Wolfe (2009), and Loe and Feldman (2007), all found that many children and adults with ADHD struggle academically and fail to either attend or complete postsecondary education. Additionally, it has been found that their lower educational levels highly limit their work opportunities (Barkley, 2002).

Fourth, individuals with ADHD experience more difficulties in the workplace than their non-ADHD peers and are more likely to suffer accidents on the job, be suspended, or even fired from their jobs. In an international study which covered 10 countries, including the United States, researchers found that on average, a person with ADHD is out sick 8.4 more days per year than their coworkers without ADHD. In general, international researchers found that the

performance of employees with ADHD is significantly lower than that of their peers (de Graaf et al., 2008).

Fifth, the research coincides in many areas when it comes to relationships and social interactions in general regarding individuals with ADHD. People with ADHD may have trouble relating to others and at times following common social rules. These relationship and social deficiencies may affect their home, school, and work environments. This disorder may affect an ADHD individual's ability to interact with others in a positive way (Harpin, 2005; Meaux et al., 2009). Their often oppositional and defiant disposition, along with their academic struggles frequently creates negative interactions with family members, peers, teachers, and co-workers (Gharibi & Gholizadeh, 2011; Harpin, 2005). However, those individuals with ADHD who receive positive attention, structure, and support from their parents—particularly their mothers— and are encouraged and supported by school personnel have more positive outcomes than those who do not have these types of support (Daley & Birchwood, 2009; Rogers & Meek, 2015).

Research results indicate that although ADHD has been the topic of research for a long time, there is still plenty of information about this condition that needs to be discovered; specifically, the role of the family and diagnosis and treatment of ADHD (Firmin & Phillips, 2009).

# **Critique of Previous Research**

Researchers agree that further studies are necessary that focus on the experiences of adolescents and adults diagnosed with ADHD aged 18 to 40 as they transition to college. Much of the existing research is based on information provided by parents, teachers, or other individuals close to the affected individual with ADHD, but very few research studies have data that originated from the adolescents or adults (Meaux et al., 2009).

Research shows that there is a predominantly negative view of ADHD and intolerance for the behaviors that individuals with this condition exhibit, such as hyperactivity, impulsivity, and inattentiveness (Hawthorne, 2010). Studies support the idea that given the appropriate assistance and interventions, there is nothing that precludes individuals with ADHD from pursuing professional careers and obtaining graduate degrees. However, to expand the number of individuals with ADHD being able to achieve these objectives, there is a need for further study that goes beyond the identification of symptoms and treatments that only focus on controlling symptoms, which cover only part of a person's day (usually the school hours), but leaves the affected individual with poor control during those hours typically spent enjoying family time. Further research is necessary that looks at a comprehensive approach that goes beyond the symptoms into effective means of remediation and overcoming academic and social obstacles (De Sanctis et al., 2012; Harpin, 2005).

LeFever et al. (2002) cited various research studies indicating that despite receiving ADHD-related services, many students with ADHD still experience poor educational outcomes and a high rate of expulsion. These researchers agree that more research is needed to explore the reason for the many poor outcomes individuals with ADHD may experience during their lifetime. This is why this research study is important as it may add to the bank of knowledge experts like Barkley, Fischer and other prominent ADHD researchers already have.

### Summary

Inattention, impulsivity, and hyperactivity are characteristics of ADHD. This condition, which is known to affect individuals from preschool to adulthood, presents with comorbid conditions such as ODD, CD, autism, bipolar disease, and Tourette's, among others (Barkley, 2002; Guldberg-Kjär et al., 2012; Klein & Mannuzza, 2010). These characteristics may

significantly impact the academic achievement or work performance of individuals with ADHD in a negative way (Asherson et al., 2012; Barkley, 2002; Harpin, 2005; Kurivan et al., 2013). Despite much research, no effective solutions have been found to successfully remediate this condition and improve educational and work outcomes for individuals with ADHD (Firmin & Phillips, 2009).

ADHD is a difficult condition to manage and affects not only the individual and their family, but also the community at large (Wymbs et al., 2008). The struggle is both academic and social (Barkley, 2002). A difficult personality, poor social skills, academic failure, and lack of self-control, in addition to oppositional behavior, too often develops into anti-social behavior, which may lead these individuals to a life of crime. There are studies that show improved perceptions about having ADHD coupled with better parental and academic supports may result in better outcomes both in school and in the workplace, and in addition to preventing many of these individuals from entering the justice system (Fleischmann & Miller, 2012; Meaux et al., 2009).

Despite the vast research available regarding ADHD, there is still a cloud of disbelief that surrounds an ADHD diagnosis. There are professionals that do not accept ADHD as a medical condition and that question not only the means for diagnosis, but also the treatment and effectiveness of the various approaches used to help individuals deal with it. There are many rationalizations. To begin with, some question whether society and school systems are in a sense "creating or exacerbating" this condition through the increased demands and expectations placed on children starting at an early age. In other words, would there be an ADHD problem if the demands of the modern classroom were different (Gualtieri & Johnson, 2005)?

Other professionals question the research on ADHD and wonder if the point of reference from which conclusions are being drawn might be misleading, starting with the subjectivity of the tools used to determine whether a person receives an ADHD diagnosis (Senior, 2009). Increasingly, there is concern over the long-term effects of the medications used to control ADHD symptoms such as hyperactivity or impulsivity. Are practitioners well informed? Are they simply overlooking the potential health risks these strong medications may lead to (Breggin, 1999; Ghodse, 2007)? What about the social effects of taking a medication that may lead an individual to withdraw socially, feel a lack of control over their own selves, be depressed, and feel less than adequate? These professionals' question whether blind compliance is worth the price of apathy and disconnect that these medications may produce in those who take them (Breggin, 1999). Since the number of diagnosed individuals continues to grow at a fast pace, it is important to continue researching and finding the answers to these and other questions that relate to ADHD.

Although much research has been done about ADHD, there are gaps in the research when it comes to adults aged 18 to 40. Particularly, there is limited qualitative research that explores the life experiences of individuals related to their successful involvement in school and work (Fleischmann & Miller, 2012; Glutting et al., 2005). Individuals with ADHD may be marginalized due to their academic and social challenges. This researcher proposed exploring the life experiences of these individuals and through the information shared by the participants co-created findings as they explored and discovered the perspectives of the adults with ADHD aged 18 to 40 as suggested by Creswell and Poth (2018) and Merriam and Tisdell (2016).

The literature review for this study revealed that more students with ADHD are enrolling in college today. Studies show that these students struggle to meet the demands of college life.

Areas such as motivation, organization, time management, and social interactions are challenging to college students with ADHD (Glutting et al., 2005). As researchers continue investigate the root causes of the struggles that students with ADHD experience at all academic levels, several studies have identified limitations caused by deficits in working memory, spatial short-term memory, visual memory, and executive functions (Bull et al., 2008; Gathercole et al., 2005; Lin & Gau, 2017). These memory and executive function deficits appear to be related to the areas of academic and organizational skills which these students struggle with throughout their school years.

As this researcher embarked on this study, it was particularly interesting to learn what the study participants' perceptions are, the knowledge about these memory and executive function issues, and how they manage or bypass their obstacles related to memory deficits and executive function related difficulties such as difficulty with time management and poor organization. It is important to note that ADHD is not a condition limited to the United States; rather it is a condition that affects many individuals of all ages, socio-economic levels, and gender.

Parents' worldwide struggle when it comes to the discipline of their children who exhibit ADHD characteristics. Often these parents feel ashamed of their child's behavior and their inability to control it (Chien et al., 2011). These parents are frequently judged unfairly and made to feel anxious, helpless, and shameful. The behavior of children and youth with ADHD is so challenging that it often leads to maltreatment of an ADHD child, which only increases the risk of adverse outcomes (De Sanctis et al., 2012; Hadianfard, 2014).

Equally important is the perception and experiences of these children's teachers. In a study conducted by Greene and colleagues (2002), teachers expressed that teaching these students causes them a great deal of stress compared to teaching non-ADHD students. In the

same manner, Hawthorne (2010) found that there is an overall negative perception of individuals with ADHD in society. The researcher noted that there is no consensus regarding how to identify and treat individuals with ADHD. There are still many questions regarding the root causes of ADHD, and the solutions are limited (Barkley & Murphy, 2007; Hawthorne, 2010).

The reality is that ADHD and its effects are felt across all levels: individually, within the family unit, throughout society, and even across generations (Harpin, 2005). More effort is being placed on finding solutions and helping these individuals overcome or compensate for their areas of difficulty instead of placing the blame on them. Some entities such as governmental agencies, a few schools, and private medical institutions are experimenting with multidisciplinary approaches to arrive at more effective means of helping individuals with ADHD and their families (Barkley & Murphy, 2007; Danciu, 2011; Harpin, 2005; Hawthorne, 2010; Leone, 2002).

There is still an exceedingly long road ahead of finding effective long-term outcomes for those individuals with ADHD who struggle both academically and, in the workplace (Hamed et al., 2015). It was the goal of this study to provide important insights and perspectives directly from the individuals with ADHD that participated in the research study. In this manner, small contributions may lead to better solutions and discovering new effective strategies in working with adults aged 18 to 40 who have been diagnosed with having ADHD.

#### **Chapter 3: Methodology**

This chapter focuses on the qualitative research approach applied to the school and work experiences of adults aged 18 to 40 affected by ADHD. The overall purpose of this study was to build new knowledge and perspectives through dialogue with these adults.

This research was important because ADHD is a condition that may carry potentially serious outcomes. Job-related difficulties may manifest in diverse ways such as receiving poor job ratings from employers and being more likely to be fired from their job (Barkley et al., 2008). Adult workers with ADHD are more likely to suffer additional medical conditions such as work-related anxiety. Adults with ADHD are also twice as likely to suffer work-related accidents; and have double the amount of absences due to sickness than their non-ADHD peers (de Graaf et al., 2008).

These outcomes are not just detrimental to the individuals afflicted by ADHD, but also for society at large as individuals struggling with ADHD enter their working years. For example, research shows that adults with ADHD cost employers more money per year in several ways, including loss of productivity and the cost of paying for work-related accidents (Barkley & Murphy, 2010; Harpin, 2005). Not only are the costs in terms of money, they are also at times in terms of safety. In addition to academic difficulties, people with ADHD have been found to have difficulty with social skills as they tend to struggle with social cues. Some may even have problems with aggression and conduct problems, ODD (Barkley, 2002).

Poor educational outcomes coupled with CD and ODD may lead to a life of crime, and the outcomes can be devastating to all: the individual, their family, the community, and society at large. According to a study conducted by Ginsberg, Hirvikoski, and Lindefors (2010), 40% of

long-term male prison inmates were diagnosed with childhood ADHD combined with other comorbid conditions like CD, ODD, and anxiety was found to severely impair prison inmates.

Through this study, this researcher sought to identify the barriers and successful practices that could then be shared with the academic community such as college and university administrators or perhaps even apply to the wider academic community members at the lower grades, and also to policymakers and potential employers in hopes that the findings might contribute new information that may lead to the creation of new school programs for individuals with ADHD across all grade levels and into graduate school. There is still a considerable number of individuals with ADHD that are dropping out of high school and college, and not pursuing higher education degrees (Simon-Dack et al., 2016).

The number of studies that focus on finding strategies and interventions or ways to modify instruction for these individuals and increase the rates of graduation are limited, and more work is necessary to develop effective targeted programs that will help increase the success rate of these students and make it possible for more of them to complete graduate programs (Simon-Dack et al., 2016). It is not known how adults with ADHD feel about their academic and workplace experiences regarding the success or barriers encountered. There is also limited research that targets or explores the experiences of adults with ADHD (Eklund et al., 2016), and even more limited are studies that consider factors and individual circumstances that contribute to lower academic achievement and limited success in the work setting (Kuriyan et al., 2013).

This researcher intended for this study to add to the current body of knowledge and that communities could benefit through a better understanding of the factors that stand in the way of individuals with ADHD regarding their academic and work-related success, and that by bringing to light their needs and struggles, both the academic institutions and the workplace could begin

to explore policies and put in place systems that will allow these otherwise bright individuals to thrive in these environments. Perhaps even more importantly, this researcher hoped to identify factors that will help those struggling with ADHD-related symptoms to feel empowered to find viable solutions or workarounds that will give them the knowledge of what their specific areas of strength and deficiencies are and how they can work around their shortcomings or overcome them to be able to achieve their greatest potential.

Qualitative research is rooted in anthropology and sociology and aims to answer questions about the what, why, and how of human behavior or experiences. Beyond that, in a social context, qualitative research seeks to bring awareness to some form of social injustice within society (Merriam & Tisdell, 2016). Transforming and empowering individuals requires getting to the root causes of problems. Qualitative research uses different methods such as focus groups, observations, and in-depth interviews that allow the researcher to go deeper into the problem and get closer to finding the root causes (Creswell & Poth, 2018).

For this study, this researcher decided to conduct in-depth, personal interviews to obtain perspectives, experiences, and histories of adults aged 18 to 40 with ADHD. Participant stories were recorded using a digital or cassette recorder, and the interview data were subsequently transcribed and complemented by observation notes and a review of documents. Participants were required to provide evidence of an ADHD diagnosis through the documentation available to them. Through this investigation, the researcher sought to understand the essence of the school and work experience of adults in the 18 to 40 age group via a two-part series of semistructured open-ended questions, which comprise the interview tool (see Appendix C).

Some studies have explored the perspective of parents and teachers regarding the academic strengths or weaknesses of the ADHD child and youth. However, there are limited

studies from the perspective of adults with ADHD aged 18 to 40 (Eklund et al., 2016). Thus, there has been a need to investigate this group's perceptions about living with this condition and how parents, teachers, and other individuals close to them handle them. There has also been a need to investigate strategies and accommodations for adults with ADHD, how to facilitate their attainment of academic and/or work-related goals and learn about the obstacles or people that in their view stand in the way of their academic and work achievement.

In a study conducted at the University of Wisconsin-Madison by Heiligenstein, Guenther, Levy, Savino, and Fulwiler (1999), the average GPA for students with ADHD is 2.5, while the average GPA of their non-ADHD peers is 3.2. Students with ADHD also have a higher risk of being placed on academic probation. In the same study, the percentage of students with ADHD on academic probation was 38%, compared to only 7% of non-ADHD students in the control group. Inattention, rather than hyperactivity or impulsivity, tend to be the greatest factor in these students' academic struggles (Rabiner et al., 2007).

Barkley and colleagues (2006) and Kuriyan and colleagues (2013) explored the outcomes of youth and adults with ADHD, and their quantitative findings indicated that these individuals struggle much more than their non-ADHD peers in the work environment. Although there is data about the struggles these individuals experience in the work setting, there is no specific information about how they perceive their experiences. Thus, there is a need for further investigation of how adults aged 18 to 40 diagnosed with ADHD perceive their daily work experience.

A longitudinal study conducted by Barkley and colleagues (2006) found that of the group of 149 participants diagnosed with ADHD, 55% of the ADHD participants were fired from their job in comparison to only 23% of the control group members, and their employers rated them as

having a more deficient work performance than the participants in the control group. The study, and others conducted by Barkley and colleagues in previous years (2002, 2004), also examined the outcomes for individuals with ADHD in comparison to those without ADHD. In the study conducted by Barkley and his colleagues (2006), the perceptions of the employers are analyzed, but there was no information about the perceptions of the employees with ADHD. The researchers acknowledged that there are only a limited number of studies that focus on the occupational functioning of adults with ADHD.

## **Research Questions**

RQ: What barriers or successful strategies do individuals with ADHD encounter as they make their way through the educational system and into the workplace?

SQ1: How do individuals aged 18 to 40 diagnosed with ADHD perceive their academic success or failure?

SQ2: Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was parental support a factor in their academic success or failure?

SQ3: Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was teacher support a factor in their academic success or failure?

### **Purpose of the Study**

The purpose of this study was to build new knowledge and perspectives through dialogue with individuals aged 18 to 40 who have been diagnosed with ADHD. The focus was to explore perceptions of the factors that contribute to their academic success or academic failure and their experiences in the workplace if they had already entered the workforce. This information could add to the limited existing body of research as it pertains to this segment of the ADHD population, especially as it relates to the human side of the issue.

Through personal interviews, this researcher aimed to explore the perceptions and experiences in relation to the participants' school and work life. In a qualitative phenomenological study, the researcher is not looking for numbers, but instead is looking to identify the essence of the participant's experiences. First, raw data is obtained through interviewing a small number of participants using open-ended questions through conversation and observation of the data. Second, the researcher describes and interprets the participants' experiences based on reflective analysis of the participant's information (Moustakas, 1994). In this type of research, participants relate in detail how their experiences have shaped their identity and how their personal, parent, teacher, peer, and school expectations, or any other life experiences that might be relevant in influencing their outcomes and outlook about school and work (Creswell & Poth, 2018).

It is the hope of this researcher that the findings of this study may be of benefit to other researchers interested in further studying ADHD, college and university professors and administrators, policymakers, parents, doctors, and the community at large. The objective is to contribute to a better understanding of this population of adults. This research gives those who review the findings a fresh look at the challenges, needs, contradictions, and expectations of these men and women, and might contribute towards creating more effective support systems and strategies, both in school and work environments. At the very least, the findings of this study further validate what other researchers have found. In addition to the existing body of work related to the field of ADHD, it also provides new information.

### **Research Methods and Design**

Qualitative research has not always been an accepted method of research (Brinkmann, Jacobsen, & Kristiansen, 2014). However, Patton (2015) provided an extensive list of examples

showing how qualitative research has solid roots dating back to 484 BCE when Herodotus used interviews and reviewed documentation to study the Greco-Persian Wars. In the field of medicine, Herophilos in 335 BCE documented the structure of the human body, and through observation, he was able to distinguish the cerebrum and the cerebellum. These and many other recognized historical figures, effectively used observation, document reviews, and interviews to expand society's understanding of the anatomy of the human body and the solar system, to develop mathematical laws, and to influence policymaking among many other things.

A qualitative research approach is used for "exploring and understanding the meaning individuals or groups ascribe to a social or human problem" (Creswell, 2013, p. 4). Qualitative inquiry captures the essence or the nature of what is being investigated (Patton, 2015). This type of research is used when the researcher seeks to understand an aspect of social life. Typically, qualitative methods try to answer questions about the what, why, and how about a topic (Merriam & Tisdell, 2016; Patton, 2015). A qualitative approach is best used to understand the views of the participants, explore how they make meaning of their experiences regarding a specific topic, or observe a process in detail (Merriam & Tisdell, 2016). Unlike quantitative studies, qualitative research focuses on small samples and at times even a single individual (Patton, 1990). The sampling in qualitative methods is purposeful, and researchers seek information-rich cases that can be thoroughly studied (Patton, 1990).

Lefler, Sacchetti, and Del Carlo (2016) conducted a qualitative study that explored the experience of college students with ADHD and the resources that these individuals utilize in college. The participants were college students who participated in focus groups. The participants ranged in age from 18 to 39 years. For the most part, the participants were Caucasian males. The results indicated that students have mixed reactions when referring to

being diagnosed as having ADHD. Some individuals reported being liberated, it helps them feel better about themselves and provides them with a reason for their academic difficulties. Others spoke about being embarrassed and judged, and do not want to be labeled. Lefler and colleagues concluded that when it comes to identification of areas of impairment, adults with ADHD express their lack of organizational skills and poor ability to persevere. Others express their frustration at being unable to pursue a career of choice due to struggles with ADHD.

Given the purpose and questions for this research project, a quantitative approach was not the best option. Unlike a qualitative approach, which focuses on words, objects, and pictures (Creswell & Poth, 2018), a quantitative approach involves numbers used for statistical purposes, correlations, measurements, and data analysis (Teo, 2013). The nature of the information pursued through this project could have required changes during the research, something that is acceptable in a qualitative study (Creswell & Poth, 2018). A quantitative study, on the other hand, is more structured and would require that the data being collected be stated in advance (Teo, 2013).

Another factor considered for this study was that the quantitative approach requires that specific variables be analyzed (Teo, 2013). The qualitative approach is more flexible and does not require a specific data set, but rather it can focus on the overall (Creswell & Poth, 2018). Additionally, a qualitative approach can accommodate a small dataset. Quantitative research is based on a hypothesis or theory that needs to be tested through the data and represented through tables, charts, and other visual forms (Teo, 2013). Qualitative research allows for exploration, and the theory or hypothesis may change or be born from the data collected, which can be represented in words (Creswell & Poth, 2018).

There are 12 core strategies of qualitative inquiry (Patton, 2015), which are divided into three classifications: Design; Data Collection and Fieldwork; and Analysis and Reporting. Design Strategies include naturalist inquiry, emergent design flexibility, and purposeful sampling. Data Collection and Fieldwork Strategies include qualitative data, personal experience and engagement, empathic neutrality and mindfulness, and dynamic system perspective. Analysis and Reporting Strategies include unique case orientation, inductive analysis, and creative synthesis, holistic perspective, context sensitivity, and reflexivity (perspective and voice).

Merriam and Tisdell (2016) explained that the qualitative framework could include interviews, focus groups, and observations used to describe the experiences of individuals. The phenomenological approach is most appropriate to studying the essence of the lived experiences of a targeted population because this approach allows the researcher to capture rich data and learn about the life experiences of individuals—which in this case was those with ADHD through personal interviews, thus capturing the information as seen through the eyes of each of the participants (Merriam & Tisdell, 2016). Through the research, individuals are empowered to share their stories, to make their voices heard, and afterward, their stories are corroborated through a mutual effort between researcher and participant as they review the written version of their interviews (Creswell & Poth, 2018).

The qualitative research method may utilize a semistructured, open-ended questioning approach to allow the participants to express their ideas and feelings freely. After collecting the information, the researcher interprets and generates meaning from the data collected to create a narrative chronology (Creswell, 2013). Specifically, the narrative inquiry method was selected because it lends itself to a more personal approach; it provides the opportunity for the researcher

to possibly contribute new insights, areas of focus, or targeted areas of improvement to the current academic systems based on data collected from this study and the researcher's specific findings and observations.

This qualitative research approach looked at the issues affecting adults with ADHD from the perspective of the participants based on his or her experiences instead of a statistical approach. A discussion of the data analysis, a description of the population, and an outline of the data collection and processes are covered later in this chapter. Additionally, it will emphasize some of the relevant ethical considerations and take a close look at the role of the researcher. The process by which interviewee stories will be analyzed and categorized will also be discussed.

Barkley (2002) conducted several studies that provide a glimpse of the struggles individuals with ADHD go through, many of which were mentioned in the previous sections. This study explores and aims to add to those contributions by focusing on understanding those issues which contribute to, or impede, a successful journey through the postsecondary education and into the work world. This researcher strives to provide additional information that will help those entities delivering disability support services with valuable insight on how to best serve this quickly growing population (DuPaul et al., 2009; Fleming & McMahon, 2012).

### **Research Population and Sampling Method**

**Population.** The general population is comprised of individuals diagnosed with ADHD. The target population for this research is adults aged 18 to 40 living in the Southern California area. This location was selected due to convenience. The researcher resides in this area of the United States. The narrative analysis inquiry is used as a method of gaining a better

understanding of the significance of human experience as suggested by Merriam and Tisdell (2016).

**Sample**. The sample was key to providing valid results. It is important to first establish the specific criteria that were required to qualify for this study. This information guided the selection process (Merriam & Tisdell, 2016).

In a qualitative study, the researcher does not require a specific number of participants. Rather, the researcher must reach data saturation or a point of which adding participants would no longer contribute to the findings (Creswell & Poth, 2018; Malterud, Siersma, & Guassora, 2015). However, saturation is an abstract concept that does not give enough guidance for what an adequate number of participants would constitute. To arrive at the right number of participants, Malterud and colleagues (2015) proposed a different approach, which they referred to as *information power*. The information power model is built on a concept that is based on five specific factors. The first factor is considering the aim of the study and if fewer participants are needed. The second factor, specificity, refers to whether the combination of participants is specific or more flexible. The third factor refers to the theoretical background of the researcher. The fourth factor is the quality of dialogue, meaning the researcher's level of expertise and ability to effectively conduct the interview. The fifth factor is the selected strategy for analysis: discourse or a longitudinal in-depth exploration of the data.

Another way of determining the appropriate sample number for a given study is by using previously similar studies as a benchmark for the one the researcher is proposing. Data saturation is reached at different points, depending on the direction the participant takes the researcher. Ultimately, the researcher has to ensure that all the key issues that surface during the interview are addressed while at the same time, not getting caught in an endless circle with data

that does not contribute anything new to the research. Although there is a various recommended minimum number of participants for a qualitative study due to the nature of this kind of research, the range of participants can be from a single participant to hundreds of them, with an average range of 20 to 30 participants (Mason, 2010). The original proposal for this study projected that the sample would be comprised of 10 study participants, but thanks to the rich information provided by the participants, this researcher was able to conclude the data collection at five participants.

This researcher promoted the research project using flyers delivered through various means, used radio public service announcements (see Appendix H) and word of mouth. All the participants were recruited through the flyer distribution in combination with word of mouth. The response to the flyer was limited; however, the pool of participants was diverse. The participants came from different paths of life. This researcher was able to achieve the aim of recruiting a diverse group of participants that together met the following criteria:

- Gender
- Age (18 to 40 years old)
- Occupational Status (unemployed, employed)
- School Status (not in school, in trade school, junior college, university, or other)
- Medication Status (no medication, on medication; or medicated as a child, as an adult, or both)

The participants provided documentation that verified their ADHD diagnosis, which was one of the requirements for participation in the study. The following documentation was used for verification purposes: medical diagnosis report, individualized education program pages, and a medical prescription that included the participant's name, diagnosis, and medication dosage.

Patton (2015) identified 16 different sampling strategies. From those 16 strategies, the following were be the best fit for this study: snowball or chain sampling, in which participants were referred to the study by either other participants or another person who had knowledge of the study and knew people who were able to provide rich information; and opportunity sampling, meaning the researcher followed new leads while conducting the field study.

## Instrumentation

According to Chenail (2009), "When performing as a discovery-oriented research instrument, qualitative researchers tend to construct study-specific sets of questions that are open-ended in nature, so the investigators provide openings through which interviewees can contribute their insiders' perspective with little to no limitations" (p. 14). With that in mind, this researcher developed an informal interview tool to use as a guide and to ensure that key points to be discussed were not left out of the conversation. This researcher used this semi-structured interview tool because it provided the structure necessary to cover all information needed while at the same time allowing the participants to speak freely about their experiences and perspectives. The topics within this tool were designed to be open-ended, flexible, and semistructured, merely guiding the conversation; but sensitive to the direction of where the participant led the conversation (Chenail, 2009).

The average interview took two hours. The interviews were held at various locations, agreed upon by the participant and this researcher within Southern California. Only this researcher and the participant were present during each of the interviews. Even though two of the participants were able to speak both Spanish and English, the only language used to conduct all interviews was English.

The interview guide (see Appendix C) was a one-page sheet of paper with key speaking points for this researcher to cover. This style questionnaire was selected because it allowed this researcher to focus their full attention on the participant and what they were saying. The intent was for the interviewer to naturally follow the conversation rather than the participant giving quick answers in anticipation for the next question. Each interview was recorded using a digital or cassette recorder.

# **Data Collection**

**Triangulation.** To achieve triangulation, the data collected needed to be confirmed through various sources (Al-Busaidi, 2008). Data obtained needed to be compared against other data, looking for similar ways of thinking or similar patterns of behavior (Creswell & Poth, 2018; Merriam & Tisdell, 2016). Some data forms that can be used in addition to interviews data are member checking, researcher observation notes, field notes, anecdotal accounts, and review of documentation (Creswell & Poth, 2018; Merriam & Tisdell, 2016; Patton, 1999).

Triangulation provides the means for the researcher to ensure that the data collected is as comprehensive and complete as possible. The idea behind triangulation is that one source of data would not be able to provide the researcher exhaustive information about their inquiry. Additionally, by using multiple methods, the researcher can check the information against one another and determine if there are disparities or important patterns. Triangulation is limited by the researcher's time constraints, budgetary requirements, and research experience (Patton, 1999).

Patton (1999) identified four different types of triangulation: *methods triangulation*, which compares data findings gathered through different methods; *triangulation of sources*, which entails looking at different data sources generated through the same method such as

comparing the observational data gathered with the interview data collected; *analyst triangulation*, which requires the use of multiple interviewers or observers or having the participant review the findings for the purpose of diminishing the potential for misinterpretation or researcher bias; and *theory triangulation*, which requires looking at the same data through different theoretical lenses or through the perspective of different stakeholders.

For this study, this researcher used several methods to meet the requirement of triangulation. Member checking was used to ensure that all data collected during the interview was accurate and complete. During the interview process, this researcher took observational and anecdotal notes. Additionally, this researcher analyzed transcript data and reviewed the documentation provided by each of the participants.

**Interviews.** An interview is a conversation that allows the participant and the researcher to construct knowledge (Creswell & Poth, 2018; Merriam & Tisdell, 2016). For this study, the data came from the participants' in-depth interviews. A semistructured interview tool was developed and approved by the Concordia University-Portland IRB prior to conducting the interviews with the participants. The semistructured interview guide was used as a guide for this researcher. This tool was paired with observational data for this researcher to obtain a better understanding of the phenomenon under study.

An interview can be done individually or in a group setting. The interview can take place either in person or via an electronic device such as a telephone, computer, or tablet. This researcher selected one-on-one, in-person interviews for this study. Although this researcher had a prepared semistructured interview guide, the interview process was dynamic, and the flow of information change based on the responses of the participant.

## **Pilot Study**

Once the semistructured interview tool (see Appendix C) was finalized and approved by the Concordia University IRB, this researcher conducted a pilot study. Three persons participated in the pilot study. The pilot study participants had the same qualifications as the actual participants. The pilot study participants ranged in age from 18 to 28. Each participant had been diagnosed with ADHD and they were interviewed in a private setting in the same way as the actual participants. The researcher debriefed with each participant and they had the opportunity to provide recommendations. The feedback provided by the pilot study participants was used to make modifications and refine the interview tool and interview process. The interview tool was used as a guide by this researcher rather than to provide a specific set of compulsive questions for the participant to respond.

Living with ADHD affects a person's life in many ways, and it was important to gain a better understanding of the coping mechanisms and strategies that help adults successfully navigate their disability through both their school and work environments without limiting or guiding their responses. This naturalistic inquiry design allowed this researcher access to deeper conversation. Naturalistic inquiry supports describing and reporting findings, as well as interpreting them (Patton, 2015).

This researcher conducted the one-on-one interviews with the aim of responding to the overall umbrella research question: "What barriers or successful strategies do individuals with ADHD encounter as they make their way through the educational system and into the workplace?" This question covered a period from elementary school years to the participants' adult years. Through the open-ended semistructured interview tool, (see Appendix C) this researcher opened a conversation by making the participant feel safe and free to share intimate

details about their school experience through the years; who were the important people in their life and what impact did they have in the various areas of their life, home, school, work, or other starting from their elementary school years to date. An open-ended interview tool was the best option for this research project, as it provided the framework within which the participants could freely express their emotions, thoughts, and perceptions.

One essential part of this study was gaining a better understanding of what strategies, tools, or social interactions contributed to ADHD individuals' abilities to thrive in society; their views about what changes could be made to bring about improved awareness, academic, and work outcomes; and how schools and employers could accommodate their needs and encourage more successful outcomes.

This researcher requested permission to recruit participants from Southern California local colleges, and universities via a formal letter (see Appendix G). No permissions were granted by the local university officials, so flyers (see Appendix F) with information about the study were distributed and posted at nearby locations. Additionally, this researcher requested the assistance of several local radio stations to disseminate the information through their free public service announcement. Both English- and Spanish-speaking radio stations disseminated the message.

Due to the lack of response, additional effort to disseminate the flyers was needed. The invitation was extended to ADHD meet-up groups and to mental health practitioners across the Southern California region. Additionally, the flyers and information about the study were posted using social media: Facebook, Instagram, and Twitter.

## **Before the Interviews**

Informed consent (see Appendix A) was obtained before the individual's participation in the study and throughout the study process. Personnel from Concordia University–Portland reviews all research projects using the three key principles: *Respect for persons, Beneficence, and Justice,* and according to federal regulations (Concordia-Portland IRB, 2004).

Respect for the participants involves thoroughly explaining the purpose of the research, what the research entails, and how the data collected will be used (Creswell & Poth, 2018; Merriam & Tisdell, 2016). It includes obtaining the participant's written informed consent to proceed with the study. Additionally, it includes informing the participants that their participation is completely voluntary (Creswell & Poth, 2018) and that they have the option to withdraw from the study at any point during the process if they so desire.

Other means of protecting the participants is by hiding their identity through the use of pseudonyms when reporting the results of the study. All personally identifiable information pertaining to the participants in this study was not revealed when publishing the results. This researcher did ensure that the information being disseminated did not give away the identity of the individual in any way.

The researcher must also show beneficence by minimizing any possible risks to the participants; psychological, social, or physical risks, and putting forth the best effort to maximize the possible benefits to the participants and the community of ADHD individuals at large. One way to do this is by directly asking the participants for their input as to what they would like to learn or gain from the study. Another word for this is reciprocity, meaning that the participants were provided information as to how they will benefit from the research study and inform them on how they will be protected from harm (Creswell & Poth, 2018; Merriam & Tisdell, 2016).

Justice involving a study has to do with treating the participants in a fair manner. It is selecting the participants in a fair manner, watching that the sampling strategies meet the necessary guidelines, reciprocating the participants by providing participation reward and storing their information in a secure manner for 5 years, reporting multiple perspectives and opposing views as to balance the findings, and ensuring to the best as possible that those participating in the study are persons who would benefit the most from such effort (Creswell & Poth, 2018; Merriam & Tisdell, 2016).

As previously mentioned, this researcher used various methods to locate potential study participants. This researcher's email address was provided via a radio announcement (see Appendix H), flyers (see Appendix F), and through social media. Upon contact, this researcher provided the interested party with general information about the study and secured an appointment time, date, and location to meet.

The day of the interview, after greeting the participant, this researcher reviewed the details of the research and any confidentiality issues. This researcher responded to any initial questions that surfaced in the course of the conversation and provided the Informed Consent Form for their review and signature prior to starting the interview. Informed consent is not the simple collection of a signature. Each participant demonstrated their understanding of the study, and of the possible risks and benefits of agreeing to participate in the study. Afterward, each participant was asked questions to complete the Participant's Demographic Information Sheet (see Appendix B). To protect the participants and for easy identification purpose, this researcher assigned a pseudo name and identification number to each of them.

# **During the Interviews**

One-on-one interviews were conducted in a private office at various locations agreed upon by each of the participants. With the approval of the participant, this researcher recorded the interview using a voice recorder. Even though the interviews were recorded, this researcher also took written observational notes capturing the participant's body language and other information deemed relevant by this researcher to complement the recorded information. Initial notes or memoing included personal reflections, observations, and impressions. Taking notes helped this researcher track all the interview items and ensure that all information was covered.

This researcher provided the participant with the opportunity to verify an e-mail message sent to him or her with this researcher's name, phone numbers, and e-mail address. At that time, the researcher also shared information about the next steps in their participation: reviewing and editing the transcript notes that would be emailed to them.

Afterward, this researcher scheduled a follow-up meeting for those participants that wanted to continue with the interview on a different date and thanked the participant for their participation in this study. This researcher then completed the Research Interview Notes Template (see Appendix D) and then transcribed the recorded information within a period of two to three days.

Transcripts were then emailed to the participant for their review and edit. On average, the participants took two to three days to complete their review and e-mail the transcript back to this researcher. A few of the participants took a little longer to complete their review, and this researcher reached out to them first via email and then via telephone to offer assistance and clarify any information. All participants reviewed their transcripts, provided clarification to the researcher about any questions, and approved the final transcript.

The data collected was stored on a flash drive, including the digital recordings inside a security box. Only the primary researcher and the Dissertation Chair have access to the data. After three years from the date of the participants' interviews, all participant information will be destroyed. There are exceptions to maintaining confidential information. Information may not be kept confidential only when there is a serious threat to self or others or suspicion of mistreatment. In that instance, the researcher has a legal obligation to report the information to the proper authorities (IRB, n.d.). As it applies to this research there was no suspicion of mistreatment or serious threat to self or others during any of the interviews, thus the information will be destroyed after three years.

# **Identification of Attributes**

The following terms refer to key elements associated with the effective instruction of students with ADHD. In order to maximize academic growth, the following four foundations need to be in place. In particular students with ADHD require a gradual release of academic responsibility, scaffolding, and modeling in addition to small group support in order to achieve student engagement and help the students gain a better understanding of the material the teacher is presented (Archer & Hughes, 2011).

**Explicit instruction approach.** The explicit instruction approach provides the student with supports or scaffolds that guide the student and also provides clear explanations that help the student learn a new skill through guided practice until the student is able to work independently (Archer & Hughes, 2011).

**Collaborative groups.** Collaborative groups are not tied to any specific content. The groups can be used in different ways, and research shows that students who participate in these

groups learn better than those who participate in more traditional classroom structures ("Collaborative group techniques...," 2016).

**Student engagement.** Student engagement refers to the level of attention, interest, and motivation for learning that a student shows during learning (Abbott, 2016).

**Conceptualization.** Conceptualization is "the action or process of forming a concept or idea of something" ("Conceptualization...," 2017).

# **Data Analysis Procedures**

After each interview, the first step in the process was to transcribe the data. Next, through coding, the data was organized and labeled. Initially, the data were placed into broad categories like positive experiences and negative experiences. After that, the researcher developed categories based on specific words which were color coded. The data were classified multiple times through various coding practices and further broken down into subcategorized and analyzed once more to arrive at recurrent themes or patterns.

Information gathered through a qualitative study is difficult to interpret and analyze because it is the product of research that describes or takes into account the point of view of the research participants within a given context. In other words, it is much more about the human experience than a compilation of figures (Al Yahmady & Al Abri, 2013).

Microsoft Excel spreadsheets were used to assist this researcher in classifying and organizing the data. Initially, the data collected were basic demographic information such as age, gender, and marital status. From that data, a demographics table was created (see Table 1). The next phase of the data analysis was a series of coding spreadsheets that separated the data into narrower categories, such as, by question, by category, and by keywords.

# Table 1

# Participant Demographics

Characteristics	Ν	%
Gender		
Male	4	80
Female	1	20
Age		
22	2	40
29	1	20
30	2	40
Marital Status		
Single	3	60
Separated	1	20
Married	1	20
High School Graduate		
Yes	4	80
No	1	20
Graduate Degree		
Yes	3	60
No	2	40
Employed		
No	2	40
Part-Time	1	20
Full-Time	2	40

# Limitations and Delimitations of the Research Design

Limitations and delimitations refer to restrictions that affect or control the study. They establish the parameters of the research. In the case of this study, they indicate the age group that was the focus of the study, the analysis process, the setting, and the language of the interview among other limits that will be specifically mentioned in the proceeding sections.

**Limitations.** There were some research design limitations for this study. Researcher bias is one of the limitations of any qualitative study (Creswell, 2014). As in all qualitative research projects, this researcher came to the study with a specific mindset and life experiences that have influenced the way research, research subjects, and the data generated through this research is personally viewed. In recognizing those biases, this researcher used bracketing to set aside any preconceptions or personal views and allow the information to flow freely during the research process as suggested by Creswell and Poth (2018) and Merriam and Tisdell (2016). There were specific steps taken to reduce the impact of this limitation.

During this study, each participant's ADHD condition was corroborated through documentation. Another area that was carefully considered during the creation of the interview tool was to ensure that the participants had the opportunity to speak about a wide range of life experiences, not just focus on one aspect of their life experiences such as just their struggles or just their successes.

A limitation of a qualitative study is that it requires a long-term commitment for both the researcher and participants (Creswell, 2014; Al-Busaidi, 2008). Both the researcher and participants must be willing and able to invest the necessary time to the study to ensure accuracy and that a level of saturation is reached.

Qualitative research will eventually reach a point of saturation, but there is a danger of not knowing when to stop and continuing to seek information when it is no longer necessary. In seeking specific qualities, there is a fine balance between extracting meaning and creating categories through a variety of tools such as visuals, words, or other tools, and just continuing to make arbitrary connections and finding new categories. To avoid that pitfall, the research must engage in a time-consuming and lengthy process of constant comparison of the initial codes,

categories, or themes that might initially emerge from the data and that the researcher must find the meaning (Creswell & Poth, 2018; Merriam & Tisdell, 2016).

Another limitation of this study was that the findings may not be generalizable to the larger population because the information will be gathered from a relatively small number of participants. The small number of participants may limit the transferability of this study results in the general population of individuals with ADHD aged 18 to 40. To overcome this limitation, this researcher used triangulation. One form of triangulation used was member checking. Every participant had an opportunity to review their transcripts and share their comments, additions, or revisions with the researcher. The second form of triangulation used by the researcher was a document review of the documentation provided by the participants to prove their ADHD diagnosis, such as a psychoeducational report. The third form of triangulation used in this research was looking at the data through the lens of three different theoretical perspectives.

**Delimitations.** This study delimited its participants to individuals aged 18 to 40 because this is a population for which there has been a limited amount of information as identified during the literature review. Another delimit placed on the participants was the location which was within the confines of Southern California. This study also delimited the participants to those without a diagnosis of any of the following comorbid conditions: Down's Syndrome and other intellectual disability; or Autism.

Another delimitation placed on the participants was the language spoken was either English or Spanish because those are the languages this researcher is proficient. The participants needed access to transportation to and from the selected interview location, had to have access to technology, and had to be able to and willing to communicate via email and use a word processing device to review and edit the transcripts.

The flyers announcing the study was limited to specific locations such as public libraries, areas near universities, and two local radio stations. Additionally, the information was disseminated through psychologists and other local professionals, support group presentations, and through social media.

## **Expected Findings**

The anticipated successful strategies that individuals with ADHD encounter as they make their way through the educational system and into the workplace included implementation of a multimodal approach such as medication and behavioral strategies as the great equalizer approach to helping students with ADHD. Anticipated barriers that individuals with ADHD encounter as they make their way through the educational system and into the workplace included a lack of a consistent discipline approach, single-parent households, household financial struggles, lack of support, expulsions, or alternative schools.

The anticipated results of how individuals aged 18 to 40 diagnosed with ADHD perceive their academic success or failure support the findings of Barkley and colleagues (2008), Asherson and colleagues (2012), and Fleischmann and Miller (2012). The themes would include lower academic achievement, anxiety, depression, low self-esteem, and learning difficulties (e.g., short-term working memory deficits and lack of focus).

The anticipated results of how parental support is a factor in academic success or failure of individuals aged 18 to 40 diagnosed with ADHD support the findings of Lifford, Harold, and Thapar (2008), with themes showing increased parental strictness, the difference between parenting styles and level of tolerance from their father and mother, difficulty interacting with parents in general (particularly their mother), a greater parental level of stress, punitive and controlling parenting, and academic impact.

The anticipated results of how teacher support is a factor in academic success or failure of individuals' ages 18 to 40 diagnosed with ADHD are mixed. For some individuals, the findings would support those of Rogers and Meek (2015) with themes that will include feelings of misunderstanding, disconnected from their teachers, incompetent in the classroom environment, and lack of acceptance. For others, however, the themes might include safety, trust, acceptance, and success.

The anticipated results of how individuals' ages 18 to 40 diagnosed with ADHD perceive their daily work experience are mixed. For some individuals, the results would match those of Barkley and his colleagues (2006). For other individuals, this study would find that they enjoy their work environment and lead successful careers.

## **Ethical Issues**

This researcher did not anticipate any conflict of interests. This researcher does not work for any entity that would benefit financially or otherwise from the results of this study. There was no financial gain from any of the work to be completed during this study.

## **Researcher's Position**

As a principal investigator, this researcher was responsible for following Concordia University–Portland's IRB policies and procedures. In assuming the position of the principal investigator, there was a great opportunity to gain insight and first-hand knowledge of the experiences of adults with ADHD. On the other hand, there was also a greater danger for introducing biases into the research data. It was important to consider this risk and plan the study carefully to avoid that possibility as much as was possible.

### **Ethical Issues About the Study**

There were some fundamental issues considered when conducting this study. Considerations before conducting this study included submitting the study proposal to the University–Portland's IRB for approval. Three critical factors had to be covered: respect for the participants, concern for the participants' welfare, and justice (Creswell & Poth, 2018; Merriam & Tisdell, 2016). This researcher showed respect for the participants and beneficence by minimizing any possible risks to the participants—psychological, social, or physical risks—and putting forth the best effort to maximize the possible benefits to the participants and the community of ADHD individuals at large. One way to do this was by directly asking the participants for their input as to what they would like to learn or gain from the study. Another word for this is reciprocity: provide the participants information about how they would benefit from the research study and inform them on how they would be protected from harm.

The participants received direct benefit from participating in this study. In addition to a \$20 incentive, it was also possible that benefits to the participant may have included but were not limited to identification of strengths not previously noted. The benefits to the ADHD community include a fresh look at the information related to the challenges students with ADHD need to face daily and possible changes based on the new findings that can improve supports both at the academic and work level. The research community also may benefit from additional findings, validation, or corroboration of current findings.

Respect for the participants involved thoroughly explaining the purpose of the research, what the research entailed, and how the data collected is being used (Creswell & Poth, 2018; Merriam & Tisdell, 2016). It also included obtaining the participants written informed consent to proceed with the study. Additionally, it included informing the participants that their

participation was completely voluntary (Creswell & Poth, 2018) and they had the option to withdraw from the study at any point during the process if they so desired.

Another means of protecting the participants was hiding their identity by using pseudonyms when reporting the results of the study. If the participant did not wish for his or her real identity to be disclosed, removing any personally identifiable information when publishing the report results was ensured. That being the case, this researcher needed to ensure that the information being disseminated did not give away the identity of the individual in any way. Concern for the welfare of the participants meant ensuring that the study did not place the participants at risk during the process. After data collection, this researcher also ensured that the data was protected and stored in a safe location.

Justice has to do with treating the participants in a fair manner. It included selecting the participants in a fair manner, watching that the sampling strategies met the necessary guidelines, reciprocating the study subjects by providing participation reward and the reassurance that their information would be securely stored for 3 to 5 years, and reporting multiple perspectives and opposing views as to balance the findings, and making sure to the extent possible that those who participate in the study receive benefit from such effort as suggested by Creswell and Poth (2018) and Merriam and Tisdell (2016).

### **Summary**

This chapter introduced the method, purpose, and importance of this study. This researcher conducted in-depth interviews to gain an understanding of the experiences of adults aged 18 to 40 with ADHD. There is limited research regarding the perspective of this group of adults and how they perceive their education and work outcomes regarding having ADHD.

Existing studies assert that adult students with ADHD struggle both in college and at work (Barkley & Murphy, 2010; Barkley et al., 2006). This study supported the findings of existing studies. It showed that this group of adults perceive their school and work experiences as challenging and provided information about the tools, strategies, and accommodations they use to compensate for their difficulties. One way of dealing with difficulties includes developing stronger support systems both at the academic and work levels.

This study consisted of a qualitative phenomenology research method, which explored how the participants made sense of their experiences and made meaning from them (Al-Busaidi, 2008). This researcher selected this approach because it provided the opportunity to interact with the participants in a safe environment, thus allowing this researcher to gain new insights related to their academic struggles, social relations, and their everyday life. A qualitative approach enabled this researcher to accommodate a small data set and afforded flexibility.

The study sample was anticipated to be approximately 10 participants, but the final study was comprised of only five participants. The qualitative research method made it possible to bring the participant search to an end at five participants. The data collected from the participants was rich and corroborated the findings of other researchers in the field as suggested by Creswell and Poth (2018) and Merriam and Tisdel (2016). The research population was of diverse ages, both male and female, with a combination of occupational and educational backgrounds, and a history of medication that aligned with the day-to-day typical population.

The main instrument of the study was this researcher, who conducted and recorded interviews and notated observations during the interview. The instrumentation of the study was an informal semi-structured interview tool that guided the interviews with key points to address

and allowing for further discussion not identified in the interview tool. Interviews lasted from 90 minutes up to 240 minutes and were conducted in English.

Concordia University–Portland's IRB approved the study and research interview tool, which was tested through a pilot study for bias and a good ratio of risk to benefit for the participants. The pilot studies helped this researcher make modifications and refine the interview tool and the process. After IRB approval, this researcher used various means to recruit participants. Each participant was given an informed consent form and was screened for minimum qualifications before being interviewed.

To protect the participants and for easy identification purpose, the researcher used a pseudonym and an identification number. Interviews were recorded, and all interviews took place within private spaces at a location agreed upon by the participant. After the interview process, this researcher transcribed the recorded conversation and then forwarded the secured document to the participant via email for review and edits. Each participant provided their input and then returned the transcript to this researcher.

This chapter outlined key characteristics associated with ADHD and the tools used to aid in the diagnosis of ADHD, the DSM-5, comorbidity, hyperactivity, impulsivity, and inattention. The main research question was: "What barriers or successful strategies do individuals with ADHD encounter as they make their way through the educational system and into the workplace?" Microsoft Excel spreadsheets were used to code, categorize, and identify themes. This chapter identified the limitations of this study and the ways in which this researcher reduced their effects. These limitations include researcher bias, the amount of work and time commitment for both the researcher and participants and generalizability.

Researcher bias in this study was addressed through bracketing and establishing a rigorous criterion of collecting appropriate documentation for proof of being diagnosed with ADHD and having participants who represented both successful and challenging life experiences. To address the level of work and time commitment for this researcher and participants, this researcher analyzed the data collected through coding multiple times until arriving at the themes and subthemes. Generalizability was addressed by gathering information through triangulation among different data sources, through interview data collection, personal observation data, and a review of documents. Another way is through member checking (Merriam & Tisdell, 2016).

Delimitations of this study included age range, location, and language of participants. Participants were between the ages of 18 to 40, living in Southern California, and spoke English. Ethical issues considered in this study included respect for the participants, concern for the participants' welfare, and justice. This was done through full disclosure of the study, gaining the voluntary consent of participants' participation, and protecting participants' identities. Justice was taken into consideration by selecting and treating participants in a fair manner, ensuring that the sampling strategies met the necessary guidelines, reciprocating the study subjects, reporting multiple perspectives, opposing views, and ensuring that the participants received benefit from this study.

#### **Chapter 4: Data Analysis and Results**

This qualitative phenomenological study investigated the lived experiences of individuals aged 18 to 40 and diagnosed with ADHD. This study attempted to contribute to the current understanding of the barriers these individuals encounter in their personal relations, school environment, and work environment. The findings also include information about successful tools and strategies these participants use to manage their challenges. Data were collected to answer the primary research question: "What barriers or successful strategies do individuals with ADHD encounter as they make their way through the educational system and into the workplace?" This chapter provides information about the data that were collected, general background information for each of the participants, and a breakdown of the most relevant themes identified during the analysis of the transcript data.

This researcher examined the experiences of this population for three main reasons: First, there is limited existing information regarding what specific tools for success are available to individuals within the study population perimeters (Simon-Dack et al., 2016). Second, because college students are not required to reveal their disabilities only "a dearth of information exists about ADHD in the college student population" (Weyandt & DuPaul, 2006, p. 9). At the time of the Weyandt and Dupaul study, no other reviews about the performance of college students had been published and only "23 studies . . . related to psychological and neuropsychological functioning of college students with ADHD" (pp. 9–10) were found by these researchers. Third, much of the information presently available was gathered through third-party sources such as parents, teachers, healthcare providers, or employers and not directly from the affected individuals (Barkley et al., 2008; Glutting et al., 2005). The problem with obtaining data from someone other than the affected individual is that the disorder is viewed from the lens of an individual who may provide biased information based on their own assumptions or experiences that may not be accurately representative of the views or perceptions of the child or adult diagnosed with ADHD (Barkley et al., 2008).

Different types of coding were used to identify the most relevant findings of this study. After the initial process of identifying codes, the data were then sorted into categories and revisited multiple times for the purpose of finding new information and exhausting the data. The data were analyzed several more times for the purpose of identifying themes and subthemes. Information was collected from the participant's interview transcript and this researcher's observational notes. The information highlights the perception and experiences of the participants.

There were four main themes and 11 subthemes that were extracted through the coding process. The tools and strategies that the participants mentioned to be helpful in managing their challenges included technology-based resources, various types of therapy, school accommodations, and the use of medication.

The phenomenological approach was selected to obtain a rich and detailed understanding of the impact ADHD has on the life of the participants directly from each participant's point of view. A phenomenological approach focuses on providing the most accurate account of the facts or experiences as told by the interviewee and allows the researcher to gain a better understanding of the bigger picture. It is important for the researcher to refrain to remain as partial and unbiased to the information and refrain from judgment to accurately capture the perspective of the participants. The phenomenological approach also gives the participants a voice and helps bring meaning to their experiences as told through their own stories and perspective. This

approach may also help dissipate misconceptions or help challenge societies' stereotypical views, in this case of individuals with ADHD.

Many quantitative studies have been conducted that provide percentages and other similar numerical data related to children with ADHD. Unlike those studies, this study focused on words that express the everyday lived experiences of the people being interviewed to better understand their needs. This researcher looked for patterns of behavior and patterns of thinking.

Previous findings of individuals with ADHD were mostly gained from a third person perspective (Meaux et al., 2009), which may or may not reflect the true reality of the person with ADHD. The primary focus of most research studies had been children up to the age of 17 instead of college and work-age adults (Fleischmann & Miller, 2012; Glutting et al, 2005). The review of existing literature showed that there is a need for more qualitative research, specifically as it relates to the population this study focuses on (Eklund et al., 2016; Kuriyan et al., 2013).

The role of the researcher as the main research instrument is to compile information from each participant's story and find common themes. The researcher analyzes and interprets the life stories of the participant one interview at a time. During the interview process, the participants were encouraged to engage in relaxed deep conversations via the open-ended semistructured interview tool (see Appendix A). This was a researcher-created tool. It was designed in such a way that it helped the researcher make sure they covered all of the areas related to the umbrella question and sub-questions (see Appendix E) while at the same time the questions needed to remain open-ended; neutral; clear and concise and flexible (Creswell, & Poth, 2018) to enable each participant to share as much information as possible without interfering or influencing their thoughts or opinions.

Special care and attention were placed in creating questions that were written in plain English terminology so they could be easy for the participant to understand and respond to. The protocol questions were organized strategically to answer each of the study questions in depth. With guidance and support from the dissertation team and the feedback received from the pilot study participants in addition to guidelines found in various publications such as books and other resources the researcher developed each of the questions of the interview protocol (Creswell & Poth, 2018; Dimock, 2018; Merriam & Tisdell, 2016; McNamara, 2009; Turner 2010).

One interview at a time, the participants' conjoined stories provided a more complete understanding of what it is like to live with ADHD and the challenges they must overcome as an adult working through college or through their daily workday. Although the participants share ADHD and other common traits, each had a unique story to tell.

Limited information about this researcher was shared with the participants to avoid any bias or preconceptions about researcher expectations. Every effort was made to ensure each participant feels safe in sharing their personal stories and to encourage an open dialogue. To do so, each participant was met at a location that was convenient for them. A private location with little distractions was selected.

At the time of the interview, the purpose of the interview and this study were explained. The consent form was discussed, and confidentiality questions were answered. An estimated time for the interview was also provided to the participant.

Each participant was given the opportunity to ask questions before starting the interview. The researcher explained that the interview would be recorded and obtained the participant's permission to record. Each participant was provided with contact information for this researcher in case they needed to get in touch and with emergency mental health information. Additionally,

the same interview questions were used with every participant to provide uniformity in the interview process.

### **Description of the Sample**

Purposive sampling was used in this study. Each participant responded to an invitation to be involved in this study through various means. The initial invitation was extended to individuals diagnosed with ADHD ages 18 to 28 to participate in this study via radio public service announcements (See Appendix C) and through flyer distribution (See Appendix B). Flyers were distributed around various communities near college campuses and at local libraries in Southern California. The invitation was also extended using social media Facebook, Twitter, and Instagram. Additionally, the invitation was shared with mental health professional and ADHD support groups in various communities in the Southern California region. The original invitation was not as successful as originally anticipated and only one participant was recruited, so the invitation needed to be expanded to cover individuals ages 18 to 40 and a \$20 incentive was also added to encourage potential participants to reach out to the researcher and participate in this study.

From the invitations, a sample group of five individuals with ADHD participated in the study. Data for each of the five participants were gathered through one-on-one interviews, which took place in various private office locations within each of the participant's local community. The individual interviews took place during the period of winter of 2017 through the summer of 2018. Each participant was given a pseudonym to protect their real identity.

Demographic information for the participants was collected. Most participants, four out of five, were males. The participants were diverse both in age, marital status, and work status.

They were from different areas within Southern California. Four out of five participants were high school graduates. Three of the participants completed their college degrees.

All participants reported that they had an Individualized Education Program (IEP) for at least part of their schooling. One of the participants provided a copy of their IEP. Two of the participants provided a copy of their psychoeducational report. Two of the participants provided a copy of their prescription for ADHD medication. Every participant spoke English and reported that they attended school in Southern California for at least part of their formative school years, plus trade school, college, or university when applicable.

**Participant 1.** Roger is a 30-year old single male. He reported being diagnosed with ADHD in early elementary and had an IEP throughout his school years. Roger is a college graduate with a bachelor's degree in psychology. He is the younger of two siblings. Roger works with adults at a live-in facility for troubled youth. He shared that he would like to return to college and earn his masters in marriage and family counseling. Roger's goal is to stop procrastinating. He stated, "I need to just get into the [Clinical Psychology Program] damn it (Laughter)!"

**Participant 2.** George is a 22-year old single male. He reported that he was diagnosed with ADHD at the age of 16 while in high school and had an IEP throughout the remainder of his high school years. He obtained a bachelor's degree in business administration. Currently, George is pursuing the goal of becoming a pilot. He is enrolled at a local technical school studying to be a commercial pilot.

**Participant 3.** Israel is a 29-year old married male. He reported that he was diagnosed with ADHD in Tijuana, México when he was in sixth grade attending school in the United States. Israel also reported that he had an IEP throughout the remainder of his school years. He

attempted to pursue a career in psychology and took some courses at some local junior colleges, but soon became discouraged by the cognitive and work completion demands and dropped out of college. Now, Israel enjoys a career as a full-time insurance agent.

**Participant 4.** Linda is a 30-year old separated female with an 8-year-old son. She also reported that she was diagnosed with ADHD and short-term memory problems in third grade, but due to constant moving around from school to school, her IEP was not implemented until the ninth grade. After what Linda described as experiencing a great deal of school failure, and having no parental or teacher support, she dropped out of school in the eleventh grade. Two years ago, she went back to school and obtained her GED. She is currently unemployed and has had a difficult time maintaining steady employment as well as stable relationships.

**Participant 5.** Henry is a 22-year old single male. He was diagnosed with ADHD late in high school, at the age of 19, and was placed on an IEP. Before his ADHD diagnosis, at a much younger age, he was diagnosed with Tourette's Syndrome, and years later he was diagnosed with visual and auditory processing disorder while still in high school. Henry received special education supports during his years in high school and while attending a university. He obtained a bachelor's degree in science. In the future, Henry would like to continue his work in the medical field and obtain a doctorate degree.

#### **Research Methodology and Analysis**

This phenomenological study is anchored on the conceptual framework and philosophical belief that the individual's interactions and experiences are unique to them and represent a different set of realities for everyone (Creswell & Poth, 2018). Each participant's data was analyzed, and themes were interpreted through coding and aligned with each research questions. Lastly, the themes were identified.

Through data collection, this researcher aimed to gain a better understanding and add to the existing body of work that reports about the impact of ADHD in the lives of adults as it relates to academic and work achievements. This work is important because the manifestations of this disorder have been known to carry serious detrimental outcomes for the individual and society at large as previously revealed by other researchers (Barkley et al., 2008; Barkley & Murphy, 2010; Harpin, 2005).

The initial data gathering included conducting in-depth interviews, transcribing the interview, and recording observational notes. The transcript data was then verified through member checking as suggested by Merriam and Tisdell (2016) and Lenfesty, Reichling, and Schultz (n.d.). Afterward, the data was analyzed and revisited multiple times to categorize the data, narrow down the information, and then identify themes by using various types of coding: attribute coding, initial coding, structural coding, and process coding.

There were some deviations from the original protocol. As mentioned in Chapter 3, the original analysis protocol included having the participants respond to two written prompts. This requirement was deleted because it was determined that it would not add to the information but instead may have been a deterrent for possible participants, since writing is a known non-preferred activity for individuals with ADHD (Barkley, 1997). Another modification to the protocol was changing the age range from 18-28 to 18-40.

This researcher had to further diversify the recruiting process. In addition to letters sent to various university and college institutions and the flyers and the radio station announcements, the search for participants had to be extended through social media such as Facebook and Twitter. The invitation was also extended to various online ADHD support groups, and inperson presentations took place at two meetings where additional information was provided to

the audience about this study. Additionally, flyers and information were provided to mental health professionals to increase the number of potential participants. These changes were necessary due to the lack of response from potential participants.

Other changes to the protocol included a smaller sample size than originally anticipated. The initial estimated number of participants was calculated as a minimum of 10 participants achieve saturation. However, the researcher was able to achieve saturation after interviewing only five participants. Lastly, this researcher had planned to use NVivo as a tool for categorizing and extracting data from the interview transcripts; however, instead, Microsoft Excel was selected to sort, classify, and categorize the raw data.

Before data collection, the interview tool was reviewed by an expert and tested by conducting a pilot study to ensure the instrument was free of bias, to provide an idea of how long it would take to administer the protocol (Chenail, 2009; Poggenpoel & Myburgh, 2003), and to ensure the instrument provided the information the researcher was seeking (Cohen & Crabtree, 2006). The original interview tool required participants to respond in writing to two writing prompts. Based on the expert recommendations and the pilot study results in December 2017, a modification to remove the written component was submitted to the review board, along with the revised interview tool (see Appendix A). The Concordia University–Portland's IRB approved the modifications.

Following best practices before the start of each interview, the participant reviewed the consent form and had the opportunity to demonstrate his or her understanding of the study and to have any questions about the research answered ("Informed Consent Documentation," 2017). As part of the process of signing the consent, the participant was given a general idea of the length of the interview, and their permission was obtained to record the interview. The purpose of the

recording was to review the data and create a transcript of the interview that would subsequently be used by the researcher to code and identify themes during the analysis phase of the study. The questions for the interviews provided the foundation for an open-ended deep conversation that allowed each participant to express themselves freely and explore their feelings moving back and forth between the various questions as the conversation developed as suggested by Creswell (2013).

Two of the interviews took four hours each to complete and were conducted in two separate meetings. The final three interviews took approximately one-and-a-half to two hours each to complete. The Interviews were audio recorded. During the interviews, this researcher took observational notes.

After the interviews were completed, this researcher transcribed the data and then emailed the transcribed file, via secured access, to the participant for their review and edit. Within a 72-hour period of the interview, the transcript was made available to the participant via a secured document for their review and edit. This member checking opportunity served as a checks and balances process to ensure that the information transcribed was correct and provided the participant the opportunity to add any missing information or correct any misinterpretation of the information (Birt, Scott, Cavers, Campbell, & Walter, 2016). All five participants completed this process and had the opportunity to further hold a conversation about their input via telephone or in person with this researcher. All the participants selected to do the final review via e-mail and telephone.

After completing the transcription and member checking process, this researcher reviewed the recordings and read the transcripts multiple times. This process was followed by the coding process and the identification of themes. The data was analyzed multiple times to

ensure saturation of codes and concepts. In a qualitative study, data saturation is not achieved based on a specific number of participants. Data saturation is achieved when the researcher can gain a full understanding of the issues raised by the data and no new information would be gained by continuing the process (Hennink, Kaiser, & Marconi, 2016). At this point in the data analysis process, this researcher was confident that the coding had been fully exhausted, thus saturation of the data was achieved.

#### **Phenomenological Research Design**

The phenomenological research design puts emphasis on interpreting participant stories and aims to describe or clarify the human experiences of the members of a given group (Merriam, & Tisdell, 2016). This design includes collecting, analyzing, interpreting, and reporting the researcher's findings. The data can be gathered through different means, such as the recordings from in-depth interviews, analysis of documentation, field notes from observations, and from reflective notes of the researcher (Cresswell & Poth, 2018; Merriam, & Tisdell, 2016). The information gathered from these activities may be used to raise awareness about a specific issue to inform others about the issue or to clarify information about the issue being investigated (Merriam, & Tisdell, 2016).

Open-ended interview questions were used to invite a deep conversation with the participants. Additionally, information was also recorded in the form of researcher observation notes. The questions were carefully crafted in such a way as to not lead the participant to obtain the most detailed account of their individual experiences without influencing the participant response.

This researcher selected the phenomenological research method because it allows for a small data set, which makes it possible to explore the experiences of the participants directly

from their own point of view (Cresswell & Poth, 2018). This research method provided a firsthand account of how the participants perceive their world and provided a unique view of what each participant considers most detrimental or most helpful. By using the phenomenological design, the researcher gives a voice to the participants. This researcher followed a specific sequence of data analysis to identify the most relevant codes, narrow them down, and then ultimately identify the primary themes.

#### **Summary of Findings**

The intent of this study was to discover the barriers or obstacles as well as successful tools or strategies participants encountered throughout their journey into higher education and/or the workplace. Coding was used to extract the patterns, categories, and themes from the transcribed data. Coding is a cyclical process rather than a one-time look at the data. Coding is the process of organizing the raw data and identifying main categories systematically further refining the categories until the data is exhausted, and themes begin to emerge. First, attribute coding was used to gather basic demographic information such as age and gender for each participant. Next, initial coding was used to identify frequent words and phrases and compare similarities and differences in the interviewee's responses. Afterward, the researcher reviewed the data in search of patterns (Saldana, 2009).

The next step was creating categories or clustering ideas into sections or category headings within the spreadsheet. The categories were created based on the data as it was identified through the coding process. After the data had been initially categorized, this researcher then further refined the categories based on the connections between the categories.

Structural coding and process coding (Namey, Guest, Thairu, & Johnson, 2008) were used to further narrow down the categories and identify themes. During structural coding, this

researcher broke down the data based on the research questions. By organizing the data in this manner, this researcher was able to compare the responses of the participants for the same questions and identify similarities and recurring situations or experiences. The final step in the process was to identify themes and subthemes from the refined data.

From these various processes, four themes and fourteen subthemes were identified. The themes were academic struggles; complex relationships; adult life challenges; and strategies, tools, and accommodations. The fourteen subthemes were focus and attention control; homework completion; learning difficulties; comorbid conditions; teacher relationships; family relationships; multigenerational connections; other relationships; organization; information recall; resilience; medication; technology; and other (see Table 2).

## Table 2

Identified	Themes	and	Subthemes
------------	--------	-----	-----------

Themes	Subthemes	
Academic Struggles	Focus & Attention Control	
	Homework Completion	
	Learning Difficulties	
	Comorbid Conditions	
Complex Relationships	Teacher Relationships	
	Family Relationships	
	Multigenerational Connections	
	Other Relationships	
Adult Life Challenges	Organization	
	Information Recall	
	Resilience	
Strategies, Tools & Accommodations		
Focus & Attention	Medication	
Organization	Technology	
Information Recall	Other	

# **Presentation of Data and Results**

All of the participants expressed their frustration at the lack of control over their various characteristics, which make their daily school work and interactions difficult to manage. They all have a great desire to succeed, but they struggle to meet the expectations of their parents, teachers and for those in the workplace of their employers. The following are statements that

were given by the participants that speak directly about their struggles in each of the eight major themes identified through the data analysis.

Academic struggles. The participants in this study all experienced academic difficulties at various points throughout their journey starting in elementary school and into the college years for those that attended. The participants credited either in full or in part their academic difficulties to the constant struggle to control their attention and focus. The Merriam-Webster Dictionary (n.d.) defines attention as "the act or power of fixing one's mind upon something; careful listening or watching" and focus as "to cause to be concentrated; a center of activity or interest."

The participants shared that their inability to focus for extended periods of time makes it difficult for them to read a longer text like a chapter book or a business document. They explained that often times they must go back and re-read the material because even though they may have uttered the words aloud as they read, the information did not register in their brain. George said, "I can tell you that I have only read one book from beginning to end in my whole life. I just can't do it. My brain gets tired."

During the interview, Henry explained, "It's hard for me to focus on one thing for a long amount of time. When trying to do one task, I am often thinking about another." Henry also shared that because of that reason, he has needed to keep jumping from one activity to another and then back to complete tasks because his "mind is constantly jumping all over the place." Roger added:

Nothing feels like the struggle of trying to pay attention. Elementary school was a real challenge. When you are a kid, it is hard to know what is important to pay attention to. As a child, you don't like going nuts."

Roger expanded on his comment about him not retaining information if the information was boring. He noted that if something was not interesting to him, such as a lecture or class activity, his mind would wander, and he would miss the information because he became distracted doing something that was more engaging to his brain. He also reported that being bored produces physical discomfort in him. Israel shared similar experiences and expressed how frustrating it was for him because he considered himself to be "one of the smart kids," but if it was not for his ability to recall the teacher's lectures and be a good test-taker, he would not have made it through school, because he could not sustain his focus and attention long enough to complete his school work.

Another factor related to school difficulties is *homework completion*. Homework was a constant source of friction between the participants, their parents, and their teachers. "Don't give me homework!" was a resounding message across the interviews. Four out of five participants identified homework as a major source of stress both physically and mentally. For example, Linda expressed, "Homework was just so difficult, especially on subjects that I didn't like. It was like pulling hair or pulling teeth; sorry, I just didn't do homework. I got bad grades. I didn't do it because I couldn't."

Based on this researcher's observational notes, Roger expressed his frustration through his body language and strong words about homework. His overall demeanor showed a great deal of anger and frustration regarding homework. Roger's overall reaction to the subject of homework was a negative one. He had closed fists, his tone of voice became louder and rougher, and he used some mild derogatory language. Roger explained:

It is stressful having to force [my] mind to do something and to stay focused, especially when I have to do it for a long period of time. It is just that I already had to exert a lot of

energy into maintaining focus during the school day [and] then having to work on something that I am not particularly good at [makes] my normal level of effort become more taxing. Homework is just a pain in the ass because it is forced on us. Don't assign me homework (Hits the table with his fist)!

Another example of how homework was challenging for the participants could be appreciated through George's story. For George, homework was not only a personal burden, but it was also a burden shared by his whole family. He reported being fortunate to have a caring and supportive family. George's parents shared in the burden of homework and shared many of his difficult teacher moments. He also reported feeling sad because all of the attention his homework required took away from the time his parents could dedicate to his sister, and that has hurt her academic performance as well as the relationship between him and his sister.

During the interview, George shared, "My mom had to learn to write with her left hand to do my homework in order to prevent constant parent conferences and to keep me from being punished at school." His father would also help when he was not on travel, but math was even more challenging than reading, and his father would get so frustrated and super mad at him. George said, "It [was] pretty bad it made me wish that my dad was not home, because I knew working on my homework would be hard; it made going to school really bad."

Homework experiences were similar among all the participants. Each shared that doing their homework required a level of engagement that was "taxing on their brain" and caused "physical pain." They reported that the time spent doing homework was six or more times longer than the time their peers spend doing the same homework. The participants also expressed their frustration at their inability to complete their work in a timely manner despite having the intellectual ability to do so.

Israel's experiences with homework were recounted as being a burden. He talked about feeling guilty about disappointing both parents and teachers by his lack of homework completion and low grades. Israel acknowledged that he was mischievous during his younger years and that he was always in trouble with his teachers, and consequently, his parents for not completing class work and not turning in his homework. Israel said:

Homework that should have taken me 20 to 30 minutes to complete would take 2 to 3 hours for me to complete it; sometimes even more. I had to just be sitting the whole day at the table because I could not finish my work because I could not focus. It would take the whole day. When it came to completing tasks like classwork or homework, I was terrible at it.

The participants explained that they experienced academic struggles due to other factors as well, such as *learning difficulties*. Participants reported several problems such as specific learning disabilities (SLD's), processing disorders, and lack of motivation. The learning difficulties were in all academic areas such as reading, writing, and math.

Learning disabilities have continued to represent a challenge for the participants even in the college years. Given that everything related to learning involves some form of reading, the participants have experienced great struggles academically. Their reading struggles also have interfered with their ability to work on more complex math problems, because, for example, they could not draw meaning from the information given in a word problem.

All participants in this study expressed having difficulties in reading. For example, Roger reported having difficulty sustaining attention and focusing. He shared that during his elementary school years reading was difficult. While reading aloud, Roger could hear words hitting his ears and going through his brain, but none of them would stick to his brain.

Another example was George. He reported experiencing difficulty in reading as well. In addition to his difficulty with focus and inability to sustain attention, George also has difficulty remembering and integrating information to make meaning. He expressed that even today as an adult he is unable to complete a reading all at once. George must continually take breaks to finish reading a book, even when the material may be of great interest to him. He experiences brain fatigue, which often results in physical head pain. George also noted that just reading a book on his own is not enough for him to learn or discern meaning from the text. For him to gain meaning from his reading, he must engage in conversation some form of discussion to synthesize and make sense of the information plus retain the material. George explained:

I love comics, but it takes me two days to read two to five pages of a comic. I cannot sustain my attention for that long on my own. In school, the teacher would read parts of a book and then talk to me about it. Every day a little bit and then we would have a discussion. Reading was very hard, and I am still a very slow reader.

Israel shared a similar experience about reading his favorite series, Harry Potter. He also has difficulty sustaining attention and focus. However, for Israel, memory and integration of information are not a problem. He said:

Even though my eyes were actually reading, maybe I was even uttering the words and everything, but I was thinking about something else instead of what I was reading. Then I would realize I don't know anything of what I just read. I would be thinking to myself, "what just happened?" English throughout high school and throughout college, it was always like one of my bad grades.

In addition to the difficulties with focus and attention, Henry has also struggled with sounds. He talked about having difficulty blending sounds together to make words. Henry struggled through

his elementary school years, but because he has always been a hard-working, well-behaved student, his reading difficulties were not identified until the sixth grade when his teacher finally recognized that he was struggling. Henry explained, "It is challenging for me to read, especially [when] reading longer text. I am constantly having to re-read paragraphs, words, [and] sentences. That kind of stuff messes me up through my daily activities."

A student or an individual with ADHD may be able to express their thoughts and ideas orally without difficulty; however, they often experience significant problems when they must record their thoughts and ideas in writing. Many of the participants in this study struggle with writing. This struggle was indicated by their comments. "I struggled with organizing my thoughts and putting my ideas on paper," said Roger. "I don't like writing. Writing takes a lot of time and a lot of focus so that is why I usually never did well in English classes," Israel, proclaimed.

Math was another area of struggle for the participants. Like reading and writing, this skill also requires a multitude of areas to master. Many of the participants have had difficulty with math concepts, operations, spatial reasoning, telling time, and calendar concepts. As previously mentioned, students with ADHD have difficulty with reading and writing, and the organization of their thought process and the actual writing process. These skills are necessary to solve and respond to a word problem. Math is a skill that builds upon previously learned concepts, so if the student has gaps, it is difficult for him or her to understand the new skill being taught. Roger shared, "Math was very difficult for me. I could not figure out fractions. I just could not get my head around the whole fractions thing." "Math was the hardest because I just didn't get it. It would take me a very long time to complete my work because it didn't make any sense," George, added. Linda explained:

Math was just like the hardest thing. It is still a problem for me because; I still don't have my multiplications memorized. I can't do math to save my life. Addition and subtraction are about as far as it goes. When it comes to multiplication and division, is like, I can do some, but I really have to think, and then it hurts my brain.

It is important to note that all five participants made reference to the importance of class work being highly motivational as a critical element to being able to maintain focus and attention. Linda was diagnosed with short-term memory processing deficit and ADHD. She reported that reading is overwhelming even when the material she is reading is interesting to her. Shorter reading material such as a magazine article or a small one-page passage is manageable for Linda, but chapter books overwhelm her brain. As mentioned previously, she also has difficulty in the areas of writing; specifically, recalling spelling patterns and in mathematics. Linda also has trouble remembering patterns, multiple steps for operations, and basic memorization of facts.

Henry was not identified as having a learning disability in auditory processing disorder until the sixth grade. Later in his life at the age of 19, he received an additional diagnosis of ADHD. It is important to note that most of Henry's elementary school was completed overseas. Although he struggled in reading, he did not receive any additional supports until the end of his elementary school year. After being identified as having both visual and auditory processing deficits, Henry's parents provided remediation services through a private learning center. Henry reported that his ability to put letters, sounds, and words together improved after the extra help. "I always avoided reading because it was a big hassle. I would read articles and stuff, but I would never read like the books in school. It was a lot of stress to be able to get through those," he said.

Individuals with ADHD and comorbid conditions tend to have difficulty interacting with peers and maintaining appropriate social relations. The participants reported having a challenging time sustaining attention, following instructions, and organizing tasks.

Another critical factor in a person with ADHD and his or her academic struggles in the presence of other comorbid conditions like anxiety, depression, and Tourette's Syndrome. These comorbid conditions have negatively affected and continue to affect the behavior of the participants in this study. Depression may also present as mood or emotional dysregulation disorder (American Psychiatric Association, 2013).

One common comorbid condition is anxiety; and more specifically, social and test anxiety. An essential feature of social anxiety disorder is a marked or intense fear or anxiety of social situations in which others may scrutinize the individual. For the participants, anxiety interferes with their ability to perform during testing and makes it difficult for them to participate in class discussions and developing friendships. Henry said:

I developed anxiety when I was in university. I developed high anxiety with people I don't really know or people I am not too familiar with; even friends of my friends or with people I am not comfortable with. My freshman year in college, I spent a lot of time just walking around campus with my head down, with a hoody on, just listening to music. I had no friends.

### George shared:

When I am around people that are strangers to me, then I don't want to talk. I guess people don't like people that are quiet. Like even when I am with my best friend, I will talk to him, but if his other friends are there, then I won't talk. It takes me a long time to make friends.

Depression presents itself as "sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function" (American Psychiatric Association, 2013, p.155). Both George and Linda provided specific descriptions of what it is like for them when they get depressed. Academically, their depression affects their motivation and their ability to attend school. They do not want to speak to anyone else, and they just want to stay in their bed and sleep. George stated:

I get depressed when outside forces interfere with things I want to do. I also get depressed when I feel alone. Like right now my parents are far away, and I don't feel like doing anything. Most of the time, I just want to stay in my bed.

Linda added:

When I get depressed, I look in the mirror and I see a hideous beast. I see everything bad that I don't like about myself. I see everything that just bothers me. I don't want to talk to anyone or do anything. Uh! It's horrible.

*Emotional Dysregulation* refers to the inability to control one's emotions. It is a condition that often is identified in individuals with ADHD. Roger shared a good example of how this disorder manifests and the level of severity this condition can reach:

When I was young, often I [would] get irritable for no reason, or what I would assume to be no reason, but after a while, the irritability would build up and build up and build up to the point where I would feel overwhelmed and irritated. Then any little thing, like just the sound of my mother vacuuming or something, and I would just blow up. I would be angry, actually so angry [that] my skin would be so sensitive it hurt if I was touched. Another comorbid condition associated with ADHD is Tourette's Syndrome. Tourette's

Syndrome is a motor disorder that appears in the form of a tic. It is "a sudden, rapid, recurrent,

no rhythmic motor movement or vocalization" (American Psychiatric Association, 2013, p.155). This is a condition one of the participants, Henry, has lived with since a young age. He shared an anecdote of how Tourette's affects him in the classroom setting:

I was diagnosed with Tourette's when I was 7 years old. It can be days, weeks, or even months sometimes without involuntary movements. When they come, I am physically doing the movements, but it is almost like I have no choice. Like, there is this pressure building inside of me and to release that tension I have to move. Like, when I am in an exam, I can feel the tension in my body and my focus shifts. So, the ADHD works with the Tourette's. In the case of the test, now I would focus on my tics instead of the exam. The focus will shift a lot.

All of these comorbid conditions and more add a level of complexity to an already difficult to manage disability. In addition to having to deal with the common characteristics of ADHD, the individual needs to find effective means for controlling or working around the other conditions such as depression, anxiety, learning disabilities, and other comorbid disorders.

**Complex relationships.** Having ADHD often translates into strained relationships. These relationships go beyond the struggles with immediate family members. In addition to parents, siblings, and extended family members, teachers also deal directly with the symptoms displayed by students with ADHD; primarily hyperactivity, inattention, and impulsivity, which the student exhibits throughout the school day on a regular basis.

Students with ADHD need direction and support from their teachers to achieve their full potential. However, their behavior often alienates their teachers and peers. The ADHD student requires more individual support, re-teaching, and pre-teaching in addition to intense behavioral supports.

**Negative teacher interactions.** For the participants, everyday personal interactions with their teachers were not always ideal or positive. Many expressed that they did not only have to overcome their ADHD and learning disabilities, but also the lack of faith their teachers showed in their ability to learn. Participant Roger talked about a time when during a parent meeting his teacher told his father that Roger would never amount to anything. Roger described this experience as a terrible, unpleasant interaction that had a long-lasting negative impact on him. "She would constantly undermine my self-confidence in my ability to learn. It actually took me several years to get over that woman and the things she said to me," Roger stated.

On a different account, the teacher not only expressed her frustration through words but became physically abusive toward participant Linda. Linda shared, "My third-grade teacher dug her nails into me one time. She would yell at me, like scream at me. She was a scary lady. I will never forget her."

Participants recognized the deep level of frustration their teachers expressed and their lack of understanding about ADHD. "I think teachers felt frustrated about not being able to help me. I got picked on a lot by a lot of teachers because they thought I was being lazy or daydreaming," said Linda. Roger added, "I think that for the most part, teachers just didn't get me. I abandoned all hope of them being positive towards me. For the most part, I'll tell you that most teachers were not patient or supportive."

Another participant talked about how teachers made it a point to call him out on his need for special education accommodations. Henry noted that many of the teachers lacked information about ADHD and often just dismissed the problem as a fad and did not take him seriously. "Others said some mean things or kind of just 'oh, come on! Be like everyone else type of thing. Just do your work, he said. Henry concluded:

I had a few teachers and professors mostly in high school and university that [were] not very respectful towards issues of anxiety, and ADHD. They just [didn't] have any sympathy, and they [were] ignorant about it [ADHD]. They [made] it a point to say out loud that I needed accommodations so that the other students [could] hear them, and they [wouldn't] approach them asking for accommodations.

**Positive teacher interactions.** Not all teacher interactions are hurtful or punitive. The participants shared positive accounts of special teachers who took the time to show that they cared. The first teacher was appreciated by the participant for their good sense of humor, for their good organization, and proactive approach to completing class work and homework. Roger explained:

There was a teacher in high school that was funny, and I appreciated his style. This teacher gave the students' time to go over the homework during the day and the teacher would then review the answers with the class. This teacher had a good system that helped the students stay on task, get one-on-one help if they needed it, and allowed the students to work ahead if they so desired. He (the teacher) would put up the problems that you had to complete during the course of the day, and he would go around and individually help each student as needed.

Roger further explained that for him that this type of classroom organization is very motivating. He was able to work ahead of his class when the problems were easy for him and he got to go home early, but he also knew that his teacher was available to help him individually if he needed extra support. For Roger, having autonomy over his work and a safety net at the same time helped reduce his anxiety level and motivated him to work quickly.

George shared another example of a positive teacher experience. "In first grade, I did not know how to write in cursive. My teacher would keep me for lunch, and she helped me with my writing. She would listen to what I had to say." He expressed the importance of feeling acknowledged by his teacher as they engaged in conversation and the encouragement, he felt by her taking the time to pull him aside and work one-on-one with him on a task that was very difficult for him. George reported that although he would lose his playtime, he did not mind because he had the attention of his teacher.

Linda mentioned yet another special teacher connection. It involved her seventh-grade art teacher. "She was very supportive of my art and me as a person. I still go back and visit her, because she [was] a big influence in [my] life." Linda also had a positive experience with her ninth-grade English teacher who helped her connect her art with her writing. Her teacher invited her to submit her poetry with illustrations for a school showcase. "It was pretty cool; that made me feel really special."

In Henry's case, the special connection was made with his sixth-grade teacher. She spent time working with him on reading, and she was the one who noticed Henry's reading struggles and helped him get the help he needed to become a better reader. "She is still a friend. She was the first person to notice anything and she didn't say anything bad about me, she just brought it up to my parents," said Henry.

Other complex relations are just like in the case of teachers, there is not enough information and support for parents and other caretakers in the family of those with ADHD. The participants expressed that their parents had a difficult time finding information and resources as well as medical professionals that were knowledgeable about ADHD. That led to the participants' parents and other family members' inability to fully understand ADHD and the

needs of the participants. The participants required more personal attention, exhibited difficult behaviors, and tended to be hyperactive, impulsive, or inattentive. They also recounted their experiences with their various family members.

The fathers of the participants dealt with ADHD and reacted to the diagnosis in a different way than the mothers. Each father's approach overall was that of "yes, you have ADHD, so now you need to find a way to deal with it." Israel explained, "My dad is just like, skeptical about the whole ADHD thing. He [would] say, in my day it wasn't called ADHD it was just called being a kid. I survived; you'll survive too."

George explained that due to his father's work, he was not often involved with his daily homework struggles, but once he was home, he consistently tried to help him with his math. George shared:

In the beginning, Dad did not want to accept that I had ADHD. My dad would always get super mad at me. He went and got a whiteboard for the house and he tried to teach me math, but it was bad; he would get so mad at me.

Roger said, "Dad and grandma pushed me because they knew damn well that I could do way better than I was. Dad was able to relate to my academic struggles and found ways to motivate and help me achieve academically"

Israel told a story about how his curious nature got him in a lot of trouble so much that he even caught a building on fire by accident. He explained, "My parents were always on my case about things. I was always getting in trouble. You know, I was a big trouble maker." Israel also reported that his parents were always supportive of him, but they were also concerned about his poor academic performance and his lack of commitment when it came to school work. His parents and he both feared for his future as he approached the end of his high school years.

According to the participants, mothers were more likely to seek information, services, and help them with ADHD. For George, his mom was his biggest supporter. "My mom would get so desperate and frustrated with me, but she always helped me. 'Just go out and play outside while I finish your homework. I am so mad at you right now!'"

Although George reported being grateful and credits his parents for all the help they have provided, he also acknowledged feeling bad about the stress and extra work he has placed on them. He expressed sadness as he spoke about his relationship with his sister. He recalled, "My sister never helped me. As we grew up, my sister became more and more jealous of the attention that my parents gave me," George shared that his sister and he used to be much closer when they were younger but over time she has become distant and resentful of all the extra time and work his parents have dedicated to him instead of praising and encouraging her good academic achievements. He told of how his sister gave up on achieving at school because of him.

Roger explained that looking back, his mom did the right thing by finding him help and taking him to the support groups and all the doctors' appointments. He called her the "unsung hero." As an adult, he now appreciates the contributions each of his caretakers made. Roger also shared that the person that understands him the best is his sister. She is always there to support him. He is grateful for his whole family. Roger concluded:

I would have loved to have one functional parent instead of a mom who thought I was broken and did everything to help me, or the dad that was always yelling but only because he knew I could do better, or a grandma that was understanding and did all the groundwork. My grandma modeled impulse and emotional control behavior instead of just saying it. However, I am grateful because between the three of them, I had my functional parent.

Israel was the only married participant. He said, "I have been married for 2 years and sometimes dealing with my ADHD is really hard for my wife." Israel spoke about needing time to gather his thoughts and to process the information being spoken to him. His wife finds that difficult to understand because she expects the conversation to keep flowing, but he needs time to process. Israel also explained that other times, it is difficult for him to stay focused and engaged during their conversations, and that hurts his wife's feelings although he does not mean to do that.

Linda shared that she had a very difficult childhood. Her parents divorced when she was in the fourth grade and she was left to figure things out on her own. She stated, "For a time, I hated all of my immediate family my dad, my sister, and my mother, Uh!" Linda described her younger sister as unsupportive, mean, and a brownnoser that instead of helping her would team up with her father to attack or blame her for whatever went wrong. She continued, "My dad was a yeller. My dad would yell, and everything was always my fault. 'God damn it, Linda!' That was his phrase for everything that went wrong."

Linda expressed that she loves her parents and recognizes that her mom has been there for her now, especially since her father died, but at the same time Linda is very resentful. She explained, "My mom, she wasn't there. She would occasionally buy me things and do my hair if I begged her enough. It's sad, but basically, I had to teach myself everything." Linda also added, "My mom and I, we've had extreme blowups. We even got into a fist fight onetime. She further elaborated:

I was rebellious, I was so rebellious. I would talk back. I was the shit. I was a turd! My main thing that I remember the most, especially when I became a teenager, I just did whatever I wanted because my mom wasn't really around. I just remember my mom and

my dad always fighting, and I was just left there with my dad. My dad was always working super late. I just got to do whatever I wanted which was cool at the time.

Linda was the only participant with a child. She has a 10-year-old son who has also been diagnosed with ADHD. Although she loves her son very much, she finds it difficult to establish limits and structure. Linda reported that at times, she does not know how to help him. He has meltdowns, and he shuts down completely when he becomes overwhelmed. Mornings, particularly, are a challenge, as neither she nor her son are morning people, and every morning is a big battle trying to get him ready for school.

Linda also shared that personal relationships are difficult for her. She has not seen the father of her son for many years and had just finished a most recent relationship with a boyfriend. She said, "He was really good for me, but now I am back to dealing with life alone. He was like my support system. He treated me with respect." Although she was left feeling really down on herself, she asserted that it is going to get better. Linda concluded, "I am grateful because he made me a better person, and I learned a lot from him."

Henry grew up with his father, mother, one brother, and one sister. He enjoys a good relationship with his entire family. Henry talked about feeling a lot of pressure from his parents to do well in school. Once he went to a college, but then they understood and gave him the time he needed to adjust. Henry also expressed having a great relationship with both of his siblings. His sister is 2 years older and his brother is 4 years older. He stated, "They are both very supportive. I have a very strong family."

Another factor that adds to the complexity of the relationships of the participants is that ADHD is often *multigenerational*. Four of the five participants shared that they have another immediate family member who exhibits characteristics of or has been diagnosed with ADHD. In

this study, there was a multigenerational connection as evidenced by the information shared by the participants. Roger shared, "My dad has gone through many of the same problems and symptoms as me, just without an official diagnosis of ADHD." George said, "My mom would say things like, 'I think I may have [ADHD] too.' She could relate to me more." Israel revealed, "My dad also has attention deficit, so my mom had to deal with both of us." Linda added, "My sister also has an ADHD diagnosis, and also my son has been diagnosed with attention deficit."

Aside from teachers and family, there are other relationships with peers and coworkers that may be affected by ADHD characteristics of an individual. Roger discussed that another problem with having ADHD is social interactions. He reported that there are times when people's feelings get hurt because even though he might think that he is listening, and in his mind, he hears what they are saying, he is unable to recall the information because at some point his mind wondered. Once Roger realizes what happened, he says, "Oh shit! "Hey, I'm sorry; I didn't listen to what you said." Then the other person perceives him as insensitive or rude. "They think that I just don't care."

Roger asserted that sometimes people see him as arrogant and dismissive. He said, "That's frustrating because I do care. I don't mean to hurt people's feelings. I really try to focus, but I can't pay attention, my mind wonders." Roger reported that this problem staying engaged in a conversation is a major concern when it comes to communicating with his girlfriend because when he becomes distracted, she perceives him as not caring about her feelings or her thoughts. Roger also explained that it is difficult for him to read social cues. He gave the example of finding it difficult to know when it is appropriate to tell a particular type of joke. He said that when he is not able to recognize the cues, then others see him as inconsiderate and insensitive and he has lost friendships because of it.

George revealed that ADHD makes it hard for him to socialize. He talked about a time when he was younger when he did not have a normal social life. George did not have any close friends even though he had attended the same school for several years. He was never included in social events or other kinds of social activities that his peers took part in. George acknowledged that even now as an adult he finds it difficult to socialize with other adults. He is unfamiliar with even if those adults who are part of his group of close friends. He also talked about preferring to interact with his friends one-on-one rather than in a group.

In addition to his difficulty making friends and dealing with social interactions, George expressed that he finds it very difficult to be emotionally present. One example of this involved a situation with his girlfriend's family who had experienced a traumatic situation. Intellectually, George understands his need to be held and protected, but emotionally, in his mind, the situation was under control, and he was ready to move on to something else. He stated, "Being supportive was really hard. My brain was like everywhere. I was listening to her. Kind of pretending to care, I mean I do care about her, but it was hard for me to just sit there."

Israel recalled a similar situation to George's in that he too finds it difficult to be emotionally present. He reported that being emotionally present causes problems with his wife because she has a need to express her emotions and hold discussions. Israel said, "That is when it becomes hard to pay attention because I already know the solution." He lacks the ability to stay engaged in the discussion when his wife is talking about feelings and he is looking at the logical side of things. He explained, "That's where the disconnect is, when I am not engaged when she really needs me to get engaged. It actually hurts her."

Linda asserted that when she was in school, her peers thought she was a troublemaker. Since she was always getting in trouble with the teachers, nobody wanted to be friends with her.

However, in time, Linda was able to develop close friendships. She has known her best friend for about 15 years. Her other three close friends, which she had known for over 10 years, have become distant within the last 3 years, and she does not have any idea why. "I don't know what brought about the distancing. I hate it and it drives me insane because I love them so much," she said.

When it comes to co-workers, Linda's relations were conflictive. She talked about working at a coffee shop, and that all the people she worked with made her feel excluded from a lot of things. Linda felt like everyone there was just annoyed by her presence. The supervisor would give her a hard time because she could not remember the steps needed to complete a given task, and he would tease her about it in front of her peers, which really embarrassed her.

Adult life challenges. Whether in school, the workplace, or at home with their families, the participants reported the need to deal with many challenges related to issues of recall of information and organization due to ADHD.

**Memory difficulties.** Memory difficulties are common in people with ADHD. These individuals often have deficits related to both short-term memory and working memory. These abilities are essential for following directions, meeting deadlines, and affecting a person's ability to follow a conversation. All five participants in this study experience great difficulty when it comes to recalling information. Roger spoke about being forgetful and having to find ways to help him remember everyday routines like cleaning the cat litter boxes, going to the gym, completing house chores, or to return a call. He has the same problem recalling information told to him. Roger must put everything in writing otherwise he runs the risk of forgetting to get something done.

George asserted that being an adult itself is an obstacle. Forgetting things is a problem. For example, if he gets a text message and he is driving, he might not answer the text for a week. George reported that for him, learning to manage deadlines is challenging. He explained, "Driving is scary. I might drive from one place to another and not remember how I got there. It's like auto drive mode, I make it to the other side, but I don't remember anything." George also has to write everything down and make himself notes or set up alarms in order to remember what he needs to do such as setting up and appointment or turning in an assignment (personal communication, February 20, 2018).

Israel has difficulty recalling information. He finds it odd that he has a good memory for numbers like phone numbers and license plate numbers and things like that, but he will forget to return a call, pick up milk, or forget an appointment.

Linda experiences constant worry because of her fear of forgetting to do something important. She acknowledged that when it comes to work tasks, she needs to physically do the tasks to remember them. It does not matter how many times the trainer might explain the task. If Linda does not do it herself, she will not remember the steps. Also, if there are several tasks that need to be completed, she needs to have the information in writing or she will forget the steps, even if it is only two or three steps she needs to remember. In the home environment, Linda also has difficulty remembering chores like switching her clothes from the washer to the dryer. If she must leave her house before switching the clothes, she might not remember until the next time she needs to do laundry that she left something in the washer. Linda must rely on post-it notes, alarms, or other tools to help her remember what chores need to be completed, keep appointments, or return calls.

Henry shared that remembering is a big challenge for him. "So, I don't know how many bottles of water, sweatshirts, or phones, I have lost a lot of stuff. I forget a lot." He forgets things like a list of items from the store that his mom has asked him to get. If she does not write down the list or sends it to him in a text message, Henry will most likely forget most of what she asked him. "Stuff like that is pretty challenging, for me." He also needs to write everything important on a planer or a calendar in order to meet deadlines, keep appointments, or return messages, otherwise, he will forget.

**Poor organization.** Organization is another important skill that individuals with ADHD often find difficult to manage. All of the participants have difficulty with organization. Rodger stated, "Organization is a challenge. Things might get forgotten if I don't prioritize things based on what needs to happen. I need to establish a routine to make sure I get important things done. Organization is hard for me."

George added, "When I was young, I had my mom to help me, but now it is hard for me. I have to find ways to organize my day, my homework assignments, and my schedule. Israel said:

I consider myself to be like an organized mess. Like everything is all over the place, but I know exactly where everything is at. Whether it comes to physical things or my ideas and my thoughts, that is usually how everything in my life is. Like anyone looking from the outside in is just going to see a mess, but I see everything perfect. I know exactly how to get to everything.

Henry proclaimed, "My organization is something I have to work on constantly. I need to find ways to keep track of important things and remind me of appointments. If I don't write everything down, then I will forget."

For Linda organization has always been difficult. "It's really stressful," she said. Linda mentioned that she would have piles of clothes everywhere, and overall her bedroom is just a disorganized mess. There are toys and things everywhere, and she just cannot bring herself to get things organized. Linda added, "I would like nothing better than to be organized, but I can't. I just can't."

**Resilience.** Resilience is the "ability to adjust easily to misfortune or change (Merriam-Webster Dictionary, n.d.). All of the participants posited that having ADHD and having to deal with or overcome their constant struggles associated with their ADHD, characteristics such as memory problems, limits the ability to pay attention, and hyperactivity has made them more resilient. The participants also reported that ADHD makes them who they are.

All of the participants shared their own perception of how ADHD has contributed to their ability to persevere despite the obstacles their disability represents at times. George exclaimed, "It is kind of weird, but somehow failing so many times has helped me not to be afraid of failure. I know in the end everything will be fine." Israel shared, "So, I guess, getting into a lot of stupid trouble as a kid. I think evolved into, you know, if something bad happens, it's not a big deal. Everything will be okay." Linda said, "I have made it this far through my own hard work and trial and error. Just because I ended up giving up and dropping out of school in eleventh grade it doesn't mean a totally gave up." Henry added, "Even when things are hard, I am able to deal with them. I've learned how to co-exist with the different syndromes or whatever; at this point, there are no excuses."

Although the participants recognize that ADHD has made certain aspects of their daily life difficult, they also acknowledge that ADHD is an integral part of their personality. "I don't see ADHD as an issue it is just part of my personality. It makes it easier for me to do what I

love," said Roger. Israel explained, "I actually think having ADHD is a good thing because it keeps me on my toes." He also asserted that it helps him cope with today's fast-paced world.

Other participants look at ADHD as a contributor to their difficulties but expressed that they do not blame ADHD for their problems. For example, Israel said, "I don't really want to blame my ADHD for my problems. I want to blame my lack of self-discipline with ADHD being the trigger for it." Linda credits her love of art and her creativity to her ADHD and posited that without her ADHD she would not be who she is.

**Strategies, tools, and accommodations.** A compiled list of successful strategies, helpful tools, and accommodations was generated from the various interactions with the participants. Many of the strategies, tools, and accommodations were mentioned as most helpful or most commonly used by the participants. Strategies are resources used by the participants to help persons with ADHD get through their everyday activities in the most efficient and least stressful manner. These strategies address the needs of the participants in the areas of organization, time management, focus and attention; and memory (see Table 3).

## Table 3

## ADHD Strategies

### Categories and Strategies

### Focus & Attention

- Focus on different characteristics, views or aspects of a person, thing, or situation to maintain engagement
- Deep breathing
- Sucking on peppermint candy
- Stretching
- Engaging all the senses
- Multitasking move from one project to another back and forth
- Fidgets
- Doodling
- Origami

Organization

- Use paper sticky notes or create electronic Sticky Notes on your desktop to remind you of important deadlines or tasks
- Use a planner or calendar or an electronic calendar to keep all your important appointments, deadlines, and reminders
- Use an alarm either on your phone, kitchen timer or the computer to remind you of important deadlines, tasks, or events
- Set an organizer near the front door to keep things you need to take when leaving your home or place of employment
- Use visuals to help you find things quickly
- Color-coding

## Information Recall

- Record teacher lesson/lecture/ work meeting
- Chunking breaking tasks processes into smaller pieces
- Making checklists like things you must do before leaving the house
- Drawing and writing information or notes
- Visualizing information
- Compartmentalizing/Setting boundaries
- Engage in group discussions study groups, in-class discussion, etc.
- Learn information in context
- Establish a routine that works for you

Some of the strategies include establishing a set of routines for daily activities that make

it easy to complete tasks in an automatic way and thus reducing stress. Another strategy

mentioned by the participants is purposely using multitasking to stay focused while completing

all needed tasks. Roger mentioned that once he became aware of his need to move from one

thing to another, he built this into his every day activities by setting up several tasks that he knows must be completed and jumping between them until they are done. He said, "If you plan it correctly, you can do a little bit of this, then a little bit of that, and then a little bit more of the first thing until you complete your tasks."

The participants use tools to acquire the necessary skills to facilitate appropriate interactions within different environments and situations. These tools provide them with access to specific types of counseling or support groups. The use of technology helps the participants monitor, remind, and provide access as needed to information or to decrease the level of difficulty for a given task as needed. For example, Henry reported that technology has been a great tool for him. He gave the example of him using electronic sticky notes on his desktop to help him keep track of his to do's. Henry also takes advantage of his phone alarm and notification features in addition to using his electronic calendar to keep track of all of his important assignments, meetings, or appointments.

Tools also include the use of medication to alleviate or improve each participant's ability to focus or control other symptoms related to their disability. It is important to note that for these participants, medication is viewed as a positive and helpful choice that assists them in reaching their goals. Although there were some reports of undesirable side effects and fear of addiction expressed by some of the participants, these concerns were considered minor in comparison to the benefits obtained in terms of their increased ability to sustain focus and their increased level of productivity while on medication (see Table 4 and Table 5).

# Table 4

Helpful Tools

Tools	Purpose	
Medication	• To help control different conditions ADHD, anxiety, depression, etc.	
Counseling and Support		
Explicit social skills instruction – group	• Explicit instruction on how to appropriately interact with others	
Explicit teaching of coping skills and anger management – group	• Helps prevent or relieve anxiety and depression. To prevent conflict	
Explicit instruction in school behavior and expectations	• Gives clear instruction on what is expected in the school/classroom	
Explicit instruction in test-taking strategies and math tricks and shortcuts	• Takes away the anxiety and fear improve outcomes and increases motivation	
Meditation/mindfulness exercises	• Help the brain relax, slow down, focus	
<u>Technology</u>	Organization and Access	
Cell phone	• Alarms, electronic notes calendars, voice recording video and camera, texting, etc.	
Computer	• Electronic sticky notes, calendar, alarms and reminders, voice to text, text to voice application	
Electronic personal assistant – (ex: Google Home, Apple HomePod, Amazon Echo, etc.)	• Record messages to self, access to electronic calendar lists of chores or errands, alarms, shopping list, step-by-step instructions, timer, etc.	
Cell phone	• Alarms, electronic notes, calendars, voice recording, video and camera, texting, etc.	

# Table 5

## Accommodations for Students with ADHD

<ul> <li><u>Testing</u></li> <li>Extended time for test taking</li> <li>Untimed tests</li> <li>Breaks during testing</li> </ul>				
<ul><li>Sep</li><li>Allo</li><li>Tex</li></ul>	arate Setting for testing ow the use of sensory tools like fidgets, pipe cleaners or Velcro t to Speech application or a human reader ech to text application or a human scribe			
NO HO	DMEWORK!			
	ng work sessions into 10 to 20-minute chunks - frequent breaks			
Provide	e a note-taker			
Allow	the use of a calculator			
Allow	he recording of lectures			
Provide	e copies of presentations and other important oral communication			
	he teaching relevant to the student and teach with enthusiasm			
Provide	e student choice (e.g., be able to jump between 3 teacher-selected assignments)			
Teach t	hrough games or other physical activities			
Provide	e more hands-on practice - active learning			
Israel re	eported that before he started taking medication, he could not make it through an			
hour work da	ay without feeling cranky and mentally exhausted. His mind needs to completely			
sconnect for	at least a couple of hours after work to get rid of his headache. However, Israel			
1 443371	I started taking my medication, I became extremely productive. When I am on			

medication, at the end of the day, [there is] no bad mood, no headache, no mental exhaustion, no

stress." Other participants shared similar experiences as well.

George reported that his medication helps him concentrate better, allows him to complete his class work, and helps him to calm down and sustain attention while reading. He also noted that if he ever forgets to take his medication, his friends notice right away. George shared, "The first two minutes that I sit in the class, my friends would say to me, 'you forgot to take your medication.' I guess it was like I had just taken a super energy drink." However, he also reported that he had to stop taking medication at times because there were also negative side effects such as loss of appetite and no desire to socialize, which he does not like.

Accommodations are meant to provide access to curriculum and school-related activities. They are not meant to change the curriculum or reduce performance expectations. The purpose of using accommodations is to give the student the opportunity to show their mastery of the material being covered in class as was shown in Table 5.

There are many ways in which a student can be accommodated and given access to the regular curriculum or make taking assessments less stressful. For example, the access to a computer or other keyboarding device with spelling and grammar checking functionality helps students who struggle with spelling, overall language structure difficulties, or difficulty with letter and number production to complete written assignment. There are also specialized programs that accommodate the needs of students who have difficulty aligning numbers and working with advanced math problems so that the math can be completed using a computer. Another possible accommodation for those who have difficulty with focus and attention is to give them the opportunity to take their test by themselves with supervision in a separate classroom.

Providing a way for individuals with ADHD to function better within society cannot be overstated. Regardless of whether that support is the form of useful strategies, tools, or

accommodations, it is important that those supports extend beyond the school setting, into the work-setting, and around the community at large. Doing so would be beneficial not just to the individual with ADHD but to society at large. It would make it possible for these individuals to show their true potential and use their multiple gifts to the benefit of themselves, their family and ultimate their community and society at large.

## **Summary**

The purpose of this qualitative study was to build new knowledge and perspectives through dialogue with individuals aged 18 to 40 who have been diagnosed with ADHD. The focus was to explore perceptions of the factors that contribute to their academic success or academic failure and their experiences in the workplace if they had already entered the workforce. The intent of this study was to discover the barriers or obstacles as well as successful tools or strategies participants encountered throughout their journey into higher education and/or the workplace.

The researcher conducted in-depth, semistructured interviews to learn about the experiences of the participants. Five participants in this study described their academic struggles, their complex relationships, their adult life challenges, and the strategies, tools, and accommodations they successfully use to work around their daily obstacles.

The setting for data collection was a private office secured at a location near each of the participants. A semistructured interview guide was used as a checklist to make sure that no questions were left unanswered. Before data collection, the participants were provided with a consent form, given the opportunity to ask questions, and informed that their interview would be recorded for future analysis.

Data was analyzed was done by using different types of coding. Attribute coding was used to analyze participant demographic information. Initial coding was used to identify frequent words and phrases and to compare participant responses for similarities. Structural coding was used to analyze the participants' responses to each of the study questions. The data was then analyzed using process coding to identify action words like learning, focusing, multitasking.

Chapter 5 examines the major findings related to adults with ADHD. It presents a discussion of the results based on the existing literature. The chapter will conclude by discussing limitations of the study, implications of the results as they relate to policy, practice, and theory and provide recommendations for future research.

#### **Chapter 5: Discussion and Conclusion**

The purpose of this study was to build new knowledge and perspectives through dialogue with individuals aged 18 to 40 who have been diagnosed with ADHD. The focus was to explore perceptions of the factors that contribute to their academic success or academic failure and their experiences in the workplace if they had already entered the workforce. The intent of this study was to discover the barriers or obstacles as well as successful tools or strategies participants encountered throughout their journey into higher education and/or the workplace. Personal accounts of the participants' life-experiences allowed this researcher to contribute new information to the existing bank of tools, strategies, and accommodations that can effectively help individuals with ADHD sidestep the manifestations of ADHD-related behavior, which based on the participants' accounts, contribute to school, family, and work struggles.

Although researchers have obtained information about ADHD, research by professionals in the medical, psychological, and education fields have not found concrete answers, which only lead to partial information about what causes ADHD. Presently, although there are many medications on the market to help these individuals with various symptoms associated with ADHD, such as hyperactivity, impulsivity, and inattention, there is no cure for it (Barkley, 2018).

The interviews conducted in this study support the findings of other researchers in the field. As in previous research, ADHD has had an important impact in many areas of individuals with this disorder such as cognitive functions, social interactions, academic achievement, and work performance (Barkley et al, 2002; Barkley, et al., 2006; Brassett-Grundy & Butler, 2004). Even more significant is that the findings in this study are consistent with individuals identified with ADHD all over the world and not just in the United States (Barkley, 2018; Danielson et al.,

2018; Faraone, Sergeant, Gillberg, & Biederman, 2003; Wang et al., 2017). The one area that became known as being important to the life outcomes for individuals with ADHD, which was touched on but not emphasized in the review of literature for this study, is the concept of self-worth, which is acquired at a very young age and the key role parents, especially the mother, play in the development of a positive self-image.

This chapter provides a summary of the results of this study and their relationship to the existing literature. It also addresses the limitations of the study, its implication for future research, and transferability of results to the general population. This chapter concludes with recommendations and conclusions.

### **Summary of the Results**

The focus of this study was to explore perceptions of the factors that contribute to the academic success or academic failure of individuals with ADHD and their experiences in the workplace if they had already entered the workforce. This researcher aimed to explore the role that caretakers and teachers play and the impact of ADHD on other relationships and the workplace. The intent of this study was to discover the barriers or obstacles as well as successful tools or strategies participants encountered throughout their journey into higher education and/or the workplace.

The major question and three sub questions that guided this study where strategically phrased to address all the areas mentioned above with the purpose of gaining new insights about those areas. The consisted of the following:

RQ: What barriers or successful strategies do individuals with ADHD encounter as they make their way through the educational system and into the workplace?

SQ1: How do individuals aged 18 to 40 diagnosed with ADHD perceive their academic success or failure?

SQ2: Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was parental support a factor in their academic success or failure?

SQ3: Based on the experiences of individuals aged 18 to 40 diagnosed with ADHD, how is or was teacher support a factor in their academic success or failure?

Adult ADHD was only recently recognized during the 1990s as a disorder that may persist from childhood into adult years (Barkley, 2002; Barkley, 2018; Barkley et al., 2008; Danielson et al., 2018; Hallowell & Ratey, 1994). Today, however, "overall, adult ADHD is well evidenced based on epidemiological data, genetic data, neuroimaging, psychosocial impairment and treatment effectiveness" (Ramos-Quiroga, Nasillo, Fernandez-Aranda, & Casas, 2014, p.553).

This study was anchored on three conceptual ideas. One, each person's experience of ADHD is unique. Through the lens of the transformative framework (Mertens, 2007), this researcher explored the life experiences of five ADHD participants through their own eyes and placed emphasis on their perception of living with ADHD. Second, there is an understanding that ADHD does not happen in a vacuum. Through the lens of Bronfenbrenner's theory of human development (Rosa & Tudge, 2013,) this researcher considered a wider range of factors related to ADHD. These include the home and school environments, social interactions, and the workplace and impact on the participant as it relates to ADHD. Thirdly, ADHD was considered through the lens of the disability theory (Oliver, 1998), showing how ADHD is an integral part of each participant because it makes them who they are. By providing the forum for the participants to share their stories, they were given the opportunity dispel misconceptions and

bring about a better understanding of what it is genuinely like to live with ADHD, not just learning about the challenges and obstacles, but also the ways in which each of them successfully work around their challenges.

The participants faced many obstacles throughout their school years and continue to face hurdles as they enter higher education institutions and the workplace. According to the Center for Disease Control and Prevention's most recent statistics, it costs society, including family members and businesses, more than \$31.6 billion to treat individuals with ADHD (Danielson et al., 2018). Given that as of 2016 in the United States alone, over six million children have been diagnosed with ADHD, and more than half of those children will continue to exhibit ADHD symptoms into adulthood (Barkley, 2002; Barkley et al., 2008; Danielson et al., 2018). The potential impact to families, community, and society at large is significant. There is an imperative need to find effective solutions to help individuals affected by ADHD lead lives with fewer challenges and experience more success in all aspects of their life at home, at school and in the workplace.

When exploring the research sub-questions, this researcher found that sub-question 1, "How do individuals aged 18 to 40 diagnosed with ADHD perceive their academic success or failure?" and sub-question 2: "How is or was parental support a factor in their academic success or failure?" are closely intertwined. It was learned that parental support is a key factor in the development of their children's sense of self and in their academic outcomes. Both selfperception and academic achievement are closely tied to one another. Parents or primary caretakers in their absence are the ones who will ultimately either build or tear down a child's sense of worth. The following are examples of this in the words of participant George:

My mom has been the most supportive of me. I am very grateful for my parents' support, but specially my mom for doing my homework and reading everything to me even after I got to high school. That is how I was able to make it through school. I have never thought of myself as dumb. I have always seen myself as capable. Even when I have bad

days, I don't think it is because I am stupid. I just always think that everything will be ok. In stark contrast to George's statements are Linda's comments, which show her perceptions of a lonely childhood without limits or controls, which in her own words seemed "great at the time." "It's sad, but I basically had to teach myself everything. My dad was always working super late. My mom, she wasn't really there. [My parents] couldn't help me with school stuff. They were never there for me." Linda also reported that she was embarrassed about her ADHD because of all the things that had been said about her growing up, like that she was a day dreamer, that she was lazy, and uncontrollable.

Researcher observations and participant comments showed that self-perception is something that was either instilled or was lacking at an incredibly early age, depending on each case, but it made a big difference in the overall outcomes of the participants. Those who grew up believing in their ability to succeed and who felt supported by their immediate caretakers, in this particular case their mothers and fathers, overall had better outcomes than those who lacked that support and positive view of themselves.

Thus, this researcher cannot emphasize enough the importance of having a strong parent support system. For those fortunate enough to have that system in place, it has provided them the opportunity to develop the mental strength and stamina necessary to believe in their ability to succeed and persevere despite their academic difficulties. For those participants who did not perceive that parental support was given, there were gaps in their outcomes. Overall, they

struggled with family relations, academics, peer relations, and in the workplace. Their outcomes were not as positive, and they experienced greater personal challenges than those who perceived that they had parent support. Individuals who did not feel supported by their parents tend to give up more easily and experience less stability in their lives, overall.

First-hand accounts of the high impact ADHD have had on the lives of the participants starting with their early school years up to now were presented during the individual interviews. The researcher found that whether the participants were still involved in the educational system or they had joined the workforce, ADHD and the various comorbid conditions associated with it were still having a strong influence in these participants 'lives. Several recent studies support the accounts of the participants in this study.

A study by Faraone, Schachar, Barkley, Nullmeier, and Salle (2017) investigated for the first time the early morning functioning of children with ADHD and the impact of their behavior on their family. The study found that the difficult behaviors exhibited by the child with ADHD have a negative effect on the emotions and behaviors of the entire family. The child's early morning poor disposition, difficulty following directions, procrastination, and tendency to misplace necessary items among other behaviors lead to more conflict between their caretakers, leaves the caretakers feeling frustrated, feeling inadequate, and constantly stressed. It also affects the relationship with siblings and between siblings. Overall, the study found that the impact on the entire family is significant. These findings are consistent with the experiences shared by all of the participants in this study regarding their own struggles with morning routines and family relations. Furthermore, it directly speaks to the idea that ADHD does not happen in a vacuum: in this case, in the family unit. The behaviors of one family member have an effect on the rest of the family and vice versa.

As it refers to family dynamics, studies show that the ADHD child experiences less conflictive relations with their father figure than their mother figure. One possible explanation for this behavior is that mothers tend to be in charge of directing the child to do chores, complete homework, and other activities in which the child tends to exhibit ADHD symptoms. Another possible reason may be the different parenting styles of the mother who tends to give more chances versus the fathers who tend to discipline the child much faster (Barkley, 2018).

The participants' personal accounts of their relationship with their parents are consistent with that of Barkley's observations. Fathers for the most part tend to put less emphasis on the ADHD diagnosis and have a more detached approach to dealing with the behavior or characteristics the participant's exhibit. The mothers tended to be more involved, be more likely to actively seek information or solutions, and respond more emotionally to the behavior or characteristics of their ADHD child.

ADHD has been found to have a strong genetic connection. The majority of the participants, 4 out of 5, in this study shared that one or more family members either exhibit ADHD behaviors or they have been medically diagnosed with ADHD. A study by Corominas et al. (2018) supported the information provided by the participants in this study. The authors studied the genes of three families all with various members having been diagnosed with ADHD. Seventy members of the families were studied. Corominas et al. found new genetic markers that further support the idea of genetic connections associated with ADHD.

Another area mentioned by the participants in this study was emotional dysregulation. For example, one of the participants shared his inability to wait in line. Barkley (2018) also referred to it as "emotional impulsiveness," which includes impatience, becoming easily frustrated or annoyed, overreacting, or getting angry easily. Another, representation of this is

blaming others and giving up easily. All of these expressions of emotional dysregulation are detrimental to children but are much more so for the adult with ADHD, because it may lead to conflicts with peers and supervisors, more frequent dismissal from jobs, and limiting their job opportunities. On a personal level, this dysregulation can interfere with marital relations, friendships, and in general contribute to more family conflicts.

All of the data gathered was obtained through participant one-on-one interviews and researcher observational notes. Coding was used to categorize and analyze the research data. Four themes and eleven subthemes emerged from the data.

The first theme was academic struggles, which include struggles with focus and attention control, homework completion problems, learning difficulties, and comorbid conditions. The second theme was complex relationships, which include teacher relationships, family relationships, multigenerational connections, and other relationships. The third theme was adult life challenges, which include organization, information recall, and resilience. The fourth theme was strategies, tools, and accommodations. The participants provided information about the practices that have proven most effective in helping them overcome or bypass their areas of need.

Data provided by the participants were then organized into tables per each category such as the use of medication as a tool to control focus and anxiety or the use of technology devices like an alarm to aid them with keeping appointments (see Tables 3, 4, and 5).

When exploring the research sub-question 3, "How is or was teacher support a factor in their academic success or failure?" The resounding answer was, "yes!" It was learned that teacher support is an important factor in academic success but not as important as parent support—in particular that of the mother. For some individuals, the findings support those of

Rogers and Meek (2015) with shared stories that include feelings of misunderstanding, feeling disconnected from their teachers, feeling incompetent in the classroom environment, and a lack of acceptance. For others, however, their stories told about safety, trust, acceptance, and success.

# **Discussion of the Results**

The results of this study revealed that in academics, individuals with ADHD experience reading difficulties. Two out of five participants in this study have greatly struggled with math, and three out of five participants shared that they have struggled with writing as well. All of the participants have experienced negative parent and teacher interactions partially due to academic difficulties. They all expressed that even now as adults they still struggle with memory difficulties, which impact many aspects of their daily life activities. The participants reported that comorbidity with at least one other condition adds to the complexity of having ADHD. In addition to sharing the difficult experiences, the participants shared successful strategies, tools, and accommodations that they practice circumventing their areas of difficulty.

The participants all expressed a deep desire to academically succeed, to have a good family, good personal relations, and to have a rewarding career. They also shared that they have actively searched for information about ADHD and the other conditions they experience. Furthermore, every participant indicated that ADHD has made them who they are. Despite the struggles ADHD has brought about they all find that ADHD is also something that in some ways pushes them to be a better person. For example, participant George acknowledged that having ADHD makes him more accepting and sympathetic toward others.

This researcher's observations indicate that despite their words, which show that the participants view their ADHD only as a set of characteristics, their demeanor and side comments show a different reality. All of the participants showed signs of shame and self-blaming for

being unable to control certain behavioral traits. Their words said one thing, but their body language—looking down, closed fist, watery eyes, fidgeting nervously, or their tone of voice and mannerisms while relating portions of their experiences were at times more telling than their words.

Given what the research reveals about the importance of building a child's sense of selfworth at the earliest stages of their development, it is important for parents to act proactively by seeking the advice and help from a pediatrician that is well versed in the diagnosis process, the treatment, and follow up required to successfully help their child with ADHD. Having the support of a well-informed pediatrician that can provide the family with an accurate and timely diagnosis is key to parents' being able to support their child early on by learning how to create an environment that is supportive of their child's needs through routines and behavior management strategies that set up their child and the family for success from the earliest possible age.

Aside from parents, doctors are key partners in establishing more appropriate treatment and also in providing the right information to parents. Given the large number of children being diagnosed with ADHD, it is imperative that pediatricians and parents become better informed and better equipped to deal with students diagnosed with ADHD.

Academic struggles. All of the participants reported having struggled academically for various reasons. One of the most significant factors mentioned is the participant's inability to control their focus and attention. This deficiency not only interferes with class lectures, but it also prevents ADHD students from being able to complete their homework assignments. According to the participants' accounts, their schoolwork and homework effort was three to six times more intense than the effort spent by their same-grade peers. Their homework assignments typically overwhelmed them, infuriated their parents, and frustrated their teachers. At the very

least, individuals with ADHD academic struggles greatly affect the attitude of their teachers toward them.

Several participants expressed that they were diagnosed with learning disability or a processing disorder in addition to ADHD. This is an important consideration for colleges and universities given that more than ever students with ADHD and learning disabilities are enrolling at their campuses (Kane et al., 2011). All of the participants also reported having at least one comorbid condition such as Tourette 's Syndrome, anxiety, or depression, which makes dealing with ADHD even more difficult.

Small group and one-on-one instructional settings best meet the needs of students with ADHD because of the complexity of their characteristics (Barkley, 2016). All of the participants expressed that they are most comfortable and are best able to function in these types of environments.

Strategic use of technology and instruction regarding its use for specific tasks and purposes must be included as an integral part of the academic experience for students with ADHD. All of the participants shared how the use of technology makes their everyday challenges less challenging. Technology is an effective tool that helps individuals with ADHD in a variety of ways from helping the individual with alarms for important tasks or deadlines to making access to reading and writing much more efficient and less threatening. Furthermore, having the opportunity to experience learning through hands-on-activities provides this style of learners with the best opportunities for recall and making sense of information. Moreover, the work assigned to them becomes more motivating when it is deemed to be meaningful and relevant such as using their adding, subtracting, and geometry knowledge to build home models

or animal habitats. When the ADHD brain finds something to be relevant, it becomes alert, creative, and motivated.

Just as parents and the medical community need to be knowledgeable about ADHD, so do teachers need to receive appropriate training and information on how to set up an environment and a classroom system that will help their students with ADHD to thrive. Just like parents rely on the information their pediatrician gives them about ADHD, they also must trust and rely on the information teachers give them. Too often, however, teachers have misconceptions and provide inaccurate information to parents about ADHD (Kern & Seabi, 2008). Furthermore, teachers' comments and observations may also contribute to the maltreatments of the child with ADHD.

All of the participants shared information related to their teachers lack knowledge about ADHD and how their comments have made trouble for them at home with their parents. They spoke about being made to feel inferior because of the words or attitudes a teacher exhibited towards them. On the opposite side of the spectrum, all of the participants had great memories of a special teacher or teachers that truly made them feel important, loved, and safe, and whose words and actions made a positive impact in their lives.

Teacher support was a factor in the participants' academic success or failure. Whether teachers are aware of it or not, their words matter. They matter to their students and their parents. Teachers have the power to use their words to make great outcomes come to life or to deliver such a blow to a student's sense of self that they may never recover from it.

Beyond student and parents, often the observations and recommendations or comments from teachers are used in diagnosing and treatment of children with ADHD. Due to the lack of information and training related to students with ADHD, teachers may wrongly perceive students

with ADHD as trouble makers, or a burden. Often the teacher's inability to correct or control the student's behavior makes them feel inept, and this contributes to the development of a negative perception or attitude toward students with ADHD, which may or may not be accurate.

Teachers are especially important in the lives of students (Ulug, Ozden, & Eryilmaz, 2011). Children spend a large percentage of their day in the care of their teachers. Teachers are more than just instructional coaches, they are a sounding board for parents, and they play many important roles in the lives of children. The teacher's perception of a child becomes the child's perception of themselves. If a teacher does not believe in a child's ability to learn and thrive, that child's chances of achieving are diminished. Teachers are not always aware of this reality. Teachers are the individuals a child spends the most time with aside from their parents, and in today's environment often times they spend more time with their teachers than their parents. Teachers become role models to their students, and their opinion and attitude towards their students matter.

A teacher's positive attitude toward their students motivates, encourages, and has a positive effect on their students' view of themselves and their ability to succeed. This brings about positive student attitudes and high student achievement. In the same manner, a teacher's negative attitude toward their students will discourage them, have a negative effect on their view of themselves and their ability to succeed, will lead to the negative attitudes of their students, and will bring about low student achievement (Ulug et al., 2011).

When considering the high stakes at play when teaching students with ADHD, district and school administrators need to make more conscious decisions about who they hire as teachers and what teachers they pair with ADHD students. As in any relationship, personalities matter, but this factor is even more critical in the case of students with ADHD and any other

disability for that matter. These students respond best to teachers that sincerely care about them, have a positive attitude, and have high expectations for themselves and their students. Being an effective teacher involves more than knowing the curriculum, routines, or procedures to follow. They must also be able to form partnerships with parents and colleagues, create motivating learning environments, and build a sense of respect, trust, and safety within their classroom. Teachers are the most important piece of the learning puzzle. They have the power to produce long lasting student achievement, but they also have the power to instill their negative influence on their student producing underachievement, which may take years to remediate (Stronge & Hindman, 2003).

The problem does not lie with the student with ADHD, it lays with the teachers and administrators whose responsibility and duty are to be well informed about the needs of their students and create classroom environments that set students up for success instead of putting the blame on the struggling student. Unfortunately, studies have shown that teachers are poorly informed about ADHD (Guerra, & Brown, 2012). Students with ADHD need and environment that provides many opportunities for hands-on practice, freedom of movement, and a flexible yet professionally managed and organized classroom. They also require clear expectations and most of all clear limits and tools that help them manage their own behavior and their productivity.

Dealing with a child with ADHD can be particularly challenging, especially as they enter the upper grades where the classrooms have 30 or more students. Teachers in the general education setting need to receive specific training related to the challenges of meeting the needs of students with special needs. The child with ADHD can experience many social challenges and at times even be defiant towards the teacher and not always deal appropriately during interactions with peers. A great resource for teachers and administrators to gain insight into what

it is like to be a child with a disability is Rick Lavoie. His various videos like the *F.A.T. City Workshops* are great ways to help teachers learn about their students with special needs and to bring about awareness.

Awareness is a great start, but then the teacher needs to be provided with effective and realistic tools and strategies that can be implemented immediately with success. General education teachers are being forced to work with students whom they are not prepared to teach. Teachers often feel overwhelmed due to the lack of information related to ADHD and behavior management (Harazni, & Alkaissi, 2016).

For the special education teacher, it is important to provide training on teaching students about their disability and also how to go around it or how to strengthen their areas of weakness. Teachers should consider joining professional organizations like the National Association of Special Education Teachers or others that can provide resources such as videos or ways to help the student.

**Complex relationships.** ADHD also contributes to experiencing complex relationships unrelated to school difficulties. Based on the participant's accounts their hyperactive, impulsive behaviors and poor social skills, these have made it difficult for parents and other family members, teachers, and peers to understand them and effectively deal with the behaviors, which have included at times disruptive behavior, aggressive behavior, and poor social interactions. The relationship between the participants and their family members is unique to each member.

For example, participants reported that their mothers were more likely to seek help and information, and they were also the ones who struggle the most in dealing with the participants' behaviors and school related challenges as was also proclaimed by Lowe and Feldman (2005). Fathers, on the other hand, tend to have a more detached approach to the ADHD diagnosis.

According to the participants' stories, 2 of them reported having difficult sibling relations due to resentfulness of the extra time the parents had to spend helping them with homework and taking them to doctors' appointments or dealing with their behavior, which took away from the time their parents could dedicate to their sibling or due their own behavior towards their siblings.

In the case of teachers, the participants have experienced both positive and negative relationships. When it comes to positive experiences, all of the participants were able to share at least one positive teacher interaction that was an important lasting motivating force in their lives. Unfortunately, those positive connections are few, and the majority of their teacher interactions were negative in nature. The participants found that many of their teachers lack empathy and sympathy as it relates to their ADHD and the symptoms associated with the condition as also reported by Lowe and Feldman (2005). At times, they have found themselves the target of ridicule both physically and verbally inflicted by their teachers.

In general, the participants reported feeling misunderstood by their teachers. They shared that both parents and teachers lack access to information and tools for supporting them through their journey.

There are other results of this study that concur with the results of other researchers. One such study is that of Harazni and Alkaissi (2016). The participants in that study spoke about the complexity of dealing with the ADHD child. The participants in that study and in this study expressed that there is a lack of information available to teachers on how to help the student with ADHD and the added work and stress both the parents and the teachers experience when having a child with ADHD in their home or the classroom. In the case of teachers, having such a student in the classroom is incredibly stressful for the teacher not just in dealing with the

excessive physical activity, but also the emotional exhaustion that comes from dealing with their behaviors (Harazni & Alkaissi, 2016; Lowe & Feldman, 2005).

All except for one participant shared that they have one or more family members who exhibit ADHD characteristics or who has been diagnosed with ADHD. Dealing with other family members with ADHD is described by the participants as both a blessing and a curse. On the one hand, the other family member can somewhat relate to their struggles. On the opposite side, the participants asserted that having ADHD does not translate into being able to understand or help other family members or even be sympathetic toward them.

According to the participants, it is difficult to make friends and interact with strangers when you have ADHD characteristics. All of the participants expressed that they have a difficult time identifying social cues and dealing with emotions. Researchers Harazni and Alkaissi (2016) and Lowe and Feldman (2005) reported the same results. These relationships include friendships, girlfriends, boyfriends and husband and wife relationships as well as work interactions.

Adult life challenges. One participant stated, "Being an adult is a challenge" (George, personal communication, February 20, 2018). ADHD symptoms such as poor organization, limited ability to stay focused, inattention, poor time management, and poor memory interfere with many everyday typical activities that non-ADHD adults take for granted. Things such as setting up appointments, remembering a conversation, making sure to return a call, completing household chores, completing tasks and assignments in a timely manner, and even driving back and forth from one place to the next are all common everyday activities that pose a great challenge for the participants (Barkley, 2018).

The participants who are already in the workplace expressed difficulty with remembering specific steps required to complete a task, remembering parts of a conversation such as talking with a client over the phone, and being unable to stay focused in addition to difficulty being able to meet the expectation of working several hours non-stop on a particular task such as is required in an office job. Other areas of difficulty in the workplace are timeliness, being unable to meet work deadlines, difficulty following directions when not written down, and difficulty getting to work on time.

Despite their challenges, the participants are optimistic about their ability to overcome their shortcomings. They expressed that over time they have built resilience and they have learned to persevere despite their many daily challenges. All of the participants have expanded a great deal of effort to learn about how their brain works and about their disability. Each contributed information about strategies, tools, and accommodations that work best for them. These recommendations have been compiled into tables and are integrated into the appendices in this study.

When looking at the question of barriers or successful strategies individuals with ADHD encounter as they work their way through the educational system and into the workplace, the data showed that adults with ADHD need a combination of tools, strategies, and interventions to successfully work around their areas of disability. One particular observation noted from this researcher is that despite the participants' words stating that ADHD is not an issue for them but rather something that is just part of their personality, in the end every one of them acknowledged that in order to succeed, they need the help of professionals to assist them in finding better ways to approach areas of most difficulty.

The most successful professional help that participants reported includes medication and making heavy use of technology tools to assist with every day skills that they struggle with such as setting up alarms or keeping information in electronic calendars or planners to help them keep up with their assignments or work tasks. The participants who have had the most difficulty have a combination of issues at play. For example, they have stopped taking medication and discontinued their therapy support, or they lack family support, have a poor self-image, and have little education.

Successful outcomes are attainable for adults with ADHD. The key to working around their areas of disability is through a multidisciplinary approach, which requires a combination of supports, including professional help in the form of therapy and counseling, medication when appropriate, and the use of technology and a buddy system or personal coaches when possible.

Lack of mental capacity is not typically an issue for students with ADHD. Rather, it is a combination of deficits in memory, executive function, and other non-intellectual related difficulties that get in the way of the person with ADHD. Many of the characteristics can be managed through various means, but in order to manage them, the individual needs to be aware, well informed, and proactive to successfully navigate through the obstacles associated with ADHD.

When considering the many situations an adult with ADHD must maneuver through on a daily basis, the resilience and perseverance required to work through them day in and day out has to be exhausting both mentally and physically. What the typical adult takes for granted, such as driving to the store, returning phone calls, or following a friend's conversation, often is a daunting task for an adult with ADHD. For these adults, often there is a great deal of frustration involved in dealing with their daily activities so much so that at times they can over compensate.

There is often so much out of the control of the individual with ADHD that at times they become overwhelmed or exhausted. One of the participants explained it like this, "I have worked myself ragged to control so much about my life that sometimes I forget that not everything in life should be a controlled and structured to do list" (Roger, personal communication, December 12, 2017).

In addition to the frustration, this researcher detected a sense of loss, a deep sadness about difficulty in dealing with personal relations. The ADHD adult struggles with personal interactions for many reasons. While they have the social need to be a part of the activities of family and friends, at the same time they struggle with many areas related to social-emotional control. The spectrum of their struggle is wide and complex. Conditions such as anxiety and depression make it difficult to make meaningful connections with others. OD and CD may lead the individual into a life of crime not necessarily out of maliciousness but due to their inability to learn from past mistakes or to control their emotions. The emotional burden is unmeasurable, and the consequences are severe, as many of these adults suffer because they are bright individuals and they recognize that they have a problem dealing with other people and noticing social cues or misinterpreting, yet much of the time they have little control over their reactions. Individuals with ADHD can analyze and logically discuss various situations that they have encountered and discuss what went wrong, but it is always after the fact.

## **Discussion of the Results in Relation to the Literature**

Despite an increase in studies pertaining to adult ADHD, the literature is still limited in this field of study. Much research has been completed regarding children with ADHD, and it has been shown that "young people with ADHD are at increased risk of academic failure, dropping out of school or college" (Harping, 2005, p. i4). As it refers to the participants of this study, two out of the five were not able to complete their education. Homework and independent work

struggles in particular were areas of deep conversation. Many areas of needs and deficiencies have been identified in the literature; however, none reveal real and viable solutions for improving the learning and life outcomes of those children and adults with ADHD.

School related tasks require intense use of memory, focus, and the use of many executive functions such as planning and organizing. Typically, the students diagnosed with ADHD are doing poorly at school and are unable to perform at their true levels of ability (Barkley, 2008). The comorbid conditions often associated with ADHD with learning disabilities (Barkley, 2006) only add to the problem.

Barkley (2008) reported that more than 50% of students with ADHD require academic tutoring to succeed at school. The researcher noted that up to 40% of them will require placement in a special education program, and up to 35% of them will drop out of school. Comparing these statistics to the ones for the current study findings the outcomes were similar: two out of five participants had received academic tutoring, all of the participants have had a special education placement, one out of five participants dropped out of high school, and one out of the remaining four dropped out of college.

Despite those grim statistics, more students with ADHD are making their way to college (Glutting et al., 2005) notwithstanding the fact that these individuals are successfully graduating from high school; however, they continue to struggle with many of the same academic difficulties they experienced in their younger years (Barkley, 2002). Today, many ADHD students lack parental support and the structure to succeed on their own. Many of them end up dropping out of college, because they feel overwhelmed by the challenges (Barkley, 2008).

College requires focus, organization, planning and the ability to deal with a heavy workload at a faster rate (Barkley, 2008). Such was the case for Israel, who dropped out of

college because he found himself frustrated. Unlike in high school where he could just absorb the information from lectures and not have to read or produce much, in college Israel was required to absorb more information, read large amounts of text in short periods of time, and juggle many different things. He just could not do it.

Many ADHD students seek medical support in the form of medication and counseling to help them with their focus, attention, anxiety, and depression symptoms, which impede their learning. In this study, the students who have successfully completed their college studies credit their success in part to the use of medication. Additionally, receiving counseling support and practicing mindfulness techniques were also mentioned as helpful interventions. Within the school environment, they found that participating in study groups and receiving accommodations such as extra time on a test helps them overcome some of their areas of difficulty.

Memory plays a major role in all of the participants in this study. Other studies have also found that both working memory and short-term memory are often associated with ADHD (Kennedy, Quinlan, & Brown, 2016). Difficulties holding on to information in their mind interfere with everyday activities both in the school setting and in their everyday life activities (Loe, & Feldman, 2007). It is important to distinguish between the different types of memory because they are often clustered as just memory, but each type impacts the individual in a different way.

Long-term memory is the ability to retain large amounts of information, knowledge, and memories of events. Short-term memory is the ability of the mind to temporarily keep a limited amount of information, ideas, and knowledge easily accessible for use (Kennedy et al., 2016). Working memory is the manipulation of the information held in short-term memory that is used

to complete a task, to plan or execute a particular behavior, and it is a combination of various processes working together simultaneously (Baddeley, 2007; Kennedy et al., 2016).

For students with ADHD, whether children or adults in the school setting, difficulty with memory may manifest in different forms like having difficulty remembering information read, forgetting instructions or directions given by the teacher, or not being able to remember the steps to solving a math operation. In the work environment, it could be in the form of forgetting work requests or instructions given by a supervisor or not being able to recall the steps to making a product, such as a particular beverage. In their personal lives, it could be difficulty recalling the items needed from the store, remembering where they placed their keys or wallet, remembering parts of a conversation, being unable to keep up with a conversation, or forgetting an appointment or task to be completed such as a doctor's appointment. All of these are typical every day activities that are challenging for people with ADHD (Kennedy et al., 2016).

Similarly, the results of this study show that all five participants struggle with memory. Every aspect of their lives is affected in one way or another by a memory deficit. Israel, for example shared:

I forget a lot. I lose things. I'll lose my sweatshirt; I'll lose my phone. I lose a lot of stuff like my water bottles; [I have] lost like 30 water bottles. [Other times] my mom will tell me to do something and I'll do two things she told me to do, but not the third one because I cannot remember all of them. Just in general [things like] going to the grocery store, I need to have a list, or else I'll definitely forget something. Stuff like that it's pretty challenging.

For another participant, the memory deficits are so severe that changing tasks is exceedingly difficult because of the fear of forgetting to complete the first important task.

Memory also has an impact as it relates to social interactions. All of the participants expressed frustration at being unable to keep up with conversations and forgetting parts of oral communications. These struggles are most significant in the workplace where they must be able to recall directions given to complete a task and they were not provided with the information in writing, or in another instance when engaged in a phone conversation with a client and suddenly the participant is unable to recall what the conversation was about or completely disengages from the conversation but is not aware of it for a few minutes. Aside from the impact as adults, during their early school years participants struggled to remember math facts, steps to complete mathematical operations, story facts from a reading, or struggled to recall directions to complete a task assigned by their teacher among other memory related difficulties.

ADHD is also related to deficiencies in self-regulation, which impairs the functioning of children and adults with ADHD in many ways. It affects the areas of organization, task completion, planning skills, task initiation and completion, time management, and self-control. As the child moves into the adult years, the same deficiencies continue to have a negative effect in their major life activities plus other areas such as social relationships, education, parent, and offspring relationships, dating and marriage, sexual activities, and crime and drug use (Barkley et al., 2008).

Although studies primarily focus on the behavior of children, for many of these children areas of difficulty persist into adulthood. For example, as it relates to marital relationships, research shows that communication, working memory issues, and other executive management issues may have a negative impact on relationships for the person with ADHD (Ersoy, & Ersoy., 2015).

Time management, planning, task initiation task completion, and organization were discussed by the participants in this study as areas of difficulty. Additionally, personal relationships with spouses, girlfriends, and offspring were an area of difficulty for three out of five participants. Some form of delinquent activity was reported by two out of five participants, and illegal drug use was reported by two out of the five participants.

In his most recent work, Barkley (2015) reported about how reduced inhibitory control and executive function deficits contribute to emotional dysregulation as well as inappropriate verbal and even physical behavior in adults with ADHD which affect their personal interactions and child rearing. These difficulties make academic and occupational failure more likely. Barkley noted that in particular, executive function problems make it difficult for the individual to set and achieve goals and increase the person's level of anxiety and depression. Executive function deficits also play a role in impulse control, driving difficulties, the inability to sustain attention and high distractibility as well as poor self-motivation and time perception difficulties which in turn increase the level of boredom the person with ADHD experiences (Barkley, 2008; Barkley & Fischer, 2018).

None of the participants in this study experienced difficulties with physical or verbal aggression as adults, but three out of five participants shared that they struggled with executive functions and suffer from high levels of anxiety and depression. Driving is another area of difficulty reported by two out of five participants. Boredom was reported by all the participants in when in the school setting.

The fact that ADHD tends to run in families adds to the complexity. For approximately 70% of individuals with ADHD, there is a genetic connection and new possible gene connections such as chromosomes LPHN3 and BAIAP2, which have been associated with ADHD but need to

be studied further (Frank, et al, 2012). Similarly, in this study, four out of five participants reported one or more family members diagnosed with ADHD.

Although there is still a long way in terms of improving the science of identifying the specific genetic makeup and connection of ADHD, it appears that help is on the way. Investigators continue to look for ways in which to help students with ADHD work around their disabilities. Many adults with ADHD were diagnosed in childhood; however, this is not the case for all of them. For this reason, part of providing the right help for them to succeed in their college endeavors is to proactively detect the students who may encounter problems by screening them for ADHD and learning disabilities as they enter college. Currently, college students are not entitled to an IEP; however, perhaps in the future new regulations may make it possible to keep IEP's active for college students until the time they complete their undergraduate studies.

## Limitations

Although the phenomenological research approach provided this researcher with the opportunity to learn directly from the participants with ADHD about their experiences and their feelings, it does pose some limitations. Each participant was only able to communicate their point of view, their feelings, and reflect on their experiences to the extent that their language ability and life experiences have allowed (Creswell & Poth, 2017). Another limitation was the relatively small sample size, which limits the generalization of the findings. Because of the small number of participants, future research could not look at this data by subtype (e.g., inattention, hyperactivity, and mixed) or by gender. Because this study only included one female participant, having more female participants might have provided a richer perspective of their experiences. This study focused only on participants residing in Southern California. Although, the findings align with those of other researchers, the range of the study is limited to the number

of participants, which could limit its transferability to the full population. Thus, the results of the study need to be interpreted within the context of these limitations.

### **Implication of the Results for Practice, Policy, and Theory**

**Practice.** In practice, parents, teachers, and medical professionals need to be more supportive and re-evaluate their outlook regarding ADHD and take a more proactive approach to deal with both children and adults with ADHD. Employers also need to take a close look at the advantages of having an employee with ADHD and reviewing their processes to make it possible for these employees to function more successfully within their work environments.

*For parents or caretakers.* As it was previously presented, parents are the first responders, per say, for students with ADHD. As such, their preparedness to support and assist the student is the key to increasing the chances for a successful outcome for students with ADHD. One of the main areas of need brought up during the interviews is the lack of information available to parents regarding ADHD and how to help their children. Parenting a child with ADHD is a challenging and incredibly stressful job for the entire family but more so for the immediate family, parents, and siblings. Dealing with the needs of a child with ADHD can be very exhausting (Ho et al., 2011).

It is important to create spaces of time away from the ADHD child not just for the parent but also for the siblings (Ho et al., 2011). Often parents are blamed for their child's misbehavior or difficult personality instead of being provided with assistance and information on how to deal with their child. One hundred percent of the participants in this study expressed that their parents had a difficult time finding help for them. They spoke about the frustration their parents felt at being unable to find the appropriate resources and how much too often the solutions offered were not the correct ones. Mothers, in particular, experienced a great deal of push back

instead of support from the fathers who often blamed them and their style of parenting for the behavioral difficulties of their child. These results are consistent with the results from Barkley (2016) and Ho et al. (2011).

One of the key recommendations for parents is to become active and well-informed advocates for their ADHD child (Barkley, 2016). Their best ally in obtaining the appropriate services for their child is their pediatrician. The American Academy of Pediatrics (AAP) has formal guidelines that pediatricians are required to follow when they have to rule out ADHD. The guidelines and recommendations are something parents need to become familiar with and be ready to discuss with their child's pediatrician.

Another recommendation is to seek the help of a pediatrician that is knowledgeable about ADHD and its complexities. Parents need to learn if the pediatrician is able to provide a multiteam approach to treatment, meaning that the pediatrician does not just prescribe medication, but also works in conjunction with a team of professionals like counselors, and behavioral therapists, and has the capacity to work with school personnel as part of the treatment and follow up plan for the student. Research has indicated that providing consistent multi-team services for the ADHD student as they move from childhood to adulthood gives them the opportunity for the best outcomes (AAP, 2000; Harpin, 2005; Leslie, 2002).

Parental support is the key to the success of the student with ADHD. All of the participants in this study acknowledged the importance of having the support of their parents. It is essential for parents to advocate for the student and become knowledgeable about special education laws, rules, and regulations, and know what supports are available through the school system. With school comes many challenges, and as a parent it is important to stay informed and involved. Do not assume that school personnel knows more about ADHD or that they know the

student best. Do not assume that the teacher and other school personnel are following through with the accommodations and modifications agreed to in the student's educational program. Instead, be present at the school site and actively advocate and support your student.

*For teachers and schools.* Students with ADHD are exceedingly difficult to work with. The implications for teachers in the current state of matters is that although much research and recommendations are available for the education setting, most teachers and administrators are ill prepared to deal with these students (Greene et al., 2002). Given the detrimental outcomes for these students when they do not receive the appropriate supports, it is imperative, that in practice when a student with ADHD is identified careful consideration is given to the classroom teacher assignment, and the overall class environment. The designated teacher needs to be fully informed not only about the disability, but also any comorbid conditions and the impact in their class (Barkley, 2016). Additionally, teachers need to be provided with ongoing appropriate training and support to ensure the success of both the teacher and the student. A teacher who is not accepting of the student with ADHD will not be a good match for the student and that is important for the administrator to recognize (Greene et al., 2002).

The increasing number of students with ADHD in the general classroom setting has many important implications for teachers. Today's classroom needs to be managed in such a way that it provides the necessary structure and supports to allow all students access to learning. For students with ADHD, that means being able to receive instruction in a small group environment or one-on-one instead of being primarily served in a whole group setting; as students with ADHD are better able to function in the smaller group settings. In addition to providing the instruction in a personalized way, their instruction also needs to be more active and livelier in to maintain the attention and focus of their students. Real world, hands-on, topics work best for

those with ADHD and given their typically short attention span, the lessons also need to be broken down in smaller chunks of time less than 20 minutes at a time (Barkley, 2016).

There are also implications for personnel beyond teachers, such as counselors, supervisors, and administrators. These individuals play a key role in helping the student with ADHD monitor their behavior and have more positive school experiences. Implementing a social-behavioral program in place for students with ADHD is highly recommended (Barkley, 2016; Greene et al., 2002). Students with ADHD have greater difficulty exerting control over their behavior and emotions when in an uncontrolled environment such as in the playground or lunch area (Barkley, 2016) that is where the positive and informed interaction with administrators, campus supervisors or custodians is crucial. These individuals need have the knowledge about ADHD to deal with misbehavior in the most effective and timely manner in order to use those opportunities to help the child learn self-regulation rather than feed into the behavior escalating a situation. Training in trauma informed practices (Sullivan, & Goodman, 2015) would be a positive addition to the school personnel's tool belt.

Another implication for administrators based on study findings is the importance of considering personally clashes between a student with ADHD and their teacher(s). Although having a good match is important for all students, having a bad match can be very detrimental for students with ADHD (Greene et al., 2002). Students need to know that their teachers believe in their ability to succeed and that their teachers understand their struggles. When selecting teachers for a position, the prospective teacher's ability to deal with students with disabilities would be an important factor to take into consideration. Teachers need to show their ability to deal with these students with care and compassion while at the same time having high expectations for them.

*For employers.* Participants in this study who have already experienced the workplace shared some key areas of difficulty. The first is that individuals with ADHD need to write down information for recall purposes, and they need to receive information in writing to refer back to it. Second, they need the opportunity to watch someone do the expected work and then given the time to practice the skill personally a few times before being expected to do it on their own. They learn best by doing. Third, they need flexibility and frequent breaks. Fourth, they need the freedom to be creative and approach tasks in their own way when possible. Fifth, time management is significantly difficult for all of these participants in the work environment.

Although the Americans with Disabilities Act (1990) is there to protect all employees with disabilities such as ADHD, revealing to an employer their ADHD diagnosis was reported as a daunting decision for the participants in this study who are already in the workforce. Although they need certain accommodations to succeed, they are afraid of being discriminated against, so none of them have revealed their ADHD during their hiring interview. As an employer, it is important to be knowledgeable and open minded about hiring individuals with ADHD traits.

When placed in the correct job assignments, an employee with ADHD can be an advantage in the workplace. Some of those traits include a willingness to take risks, their ability to persevere; excellent at multi-tasking, and their high energy and creativity levels. On the other hand, employers also need to be aware of the negative traits that can become an obstacle to success in the workplace such as a tendency to procrastinate, possible personality conflicts, and an incredibly low tolerance for boredom (Hallowell, & Ratey, 2005).

Given that the research related to ADHD in the workplace is extremely limited, it is important for employers to invest in additional research and work closely with their human resources personnel to create systems that would help them better identify and match potential

employees with ADHD. There are many possible advantages to hiring such an individual if their traits are channeled in the right direction.

**Policy.** As relates to current policy, given the extensive proof available as to the true nature and limitations of ADHD on students, both children and adults, the implementation of specialized programs to meet both their learning style and their limitations are necessary. Research indicates that these students need more structure, more personal attention, and more frequent behavioral supports (Barkley, 2016). Per the participants' accounts of their experiences, the supports provided to them have not been adequate and have not targeted the root cause of their difficulty, but rather their symptoms and their academics weaknesses with seemingly no regard to the underlying cause of their difficulty.

For example, if the student with ADHD has struggled with reading due to memory problems, auditory processing, or visual processing deficits, they are provided with the traditional decoding, vocabulary, or comprehension instruction just in a smaller setting and more intensity, but they are not given specific instruction to improve their processing deficits such as memory skills training, auditory processing training, or visual processing training to remediate their areas of need. Those types of interventions would improve their areas of weakness and in turn the students' overall academic performance across all subjects. Once again, a combination approach would have provided a better outcome by providing both the processing skill training and decoding skills. Students may have ADHD as a common diagnosis, but the remediation needs for their comorbid conditions would be completely different depending on the impact of their combined conditions.

That leads to the issue of placement guidelines for special education students. Given the history of discrimination towards certain groups, the law has a focus on ensuring that all students

have access to the general education classroom rather than ensuring that the placement is determined based on the academic benefit to the student regardless of whether that is a general education classroom or a special education classroom. The law asserts that a student with disabilities must be placed in the least restrictive environment. Currently, the Least Restrictive Environment under section 612(a)(5) of the Individuals with Disabilities Education Act (IDEA, 2004), states that:

To the maximum extent appropriate, children with disabilities, including children with disabilities in public or private institutions or other care facilities, must be educated with children who are not disabled. Further, special classes, separate schooling, or other removal of children with disabilities from the regular educational environment may occur only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

Appropriate and satisfactorily are key words in the aforementioned statement. Both requirements are subjective, and especially young children do not get a say as to whether or not their education is either appropriate for them or their progress satisfactorily. Furthermore, satisfactory may represent one number to a State, district, or school, and another to a different State, district, or school.

In *Board of Education of Hendrick Hudson Central School District v. Rowley*, the Supreme Court established the minimal definition of a free and appropriate education to mean that the student is receiving *some* educational benefit thus districts are not obligated to provide the best possible setting or services to a student with disabilities to guarantee the student is

achieving to their highest potential. It suffices that the student is just making some progress towards grade-level standards (as cited in Osborne, Jr., & Russo, 2014).

The guidelines for least restrictive environment need to be redefined to include a setting in which the student is best able to develop to his or her *highest* potential rather than defined by the amount of time spent outside of the general education classroom, because often for a student with ADHD the general education classroom is the most restrictive environment in terms of learning and their social emotional well-being, in particular for those students whose comorbid condition is anxiety.

In the view and opinion of some educators, administrator, and policymakers, there is a negative view of placing students within the special education program, but this view is not necessarily reflective of the opinion or view of the students receiving special education services. Oftentimes the student with disabilities, in this case ADHD, feels less supported in their general education classes and experience a sense of safety within their special education environment.

Four out of five participants in this study expressed their inability to function within the general education classroom setting and also expressed the great level of anxiety and stress that setting has brought about. In contrast, they reported being most successful in their special education classroom where they feel supported and "normal" as other students also struggle academically and they are not being judged. Participant Roger spoke of how being in the general education classroom did not make him feel successful or appropriately and sufficiently supported:

So many bad school experiences are the reason that I feel inadequate all the time. I feel that somehow, I am not good at anything sometimes, or that somehow what I'm doing is just not quite good enough. In class, I needed someone to help me understand those

concepts that I was confused about or didn't get. I did not need the repetition, repetition, and homework just to do homework, I felt inadequate all the time.

In contrast, what Linda shared was an example of her recollection of attending the special education classroom:

When I was in the RSP [resource specialist program], it was cool because it was a smaller class, so I didn't feel different cause like everyone else had issues too. So, I didn't feel judged, and then I didn't feel too scared because it was a smaller class and everybody else was just like me. This was great, it was wonderful being in [the resource specialist program classroom (RSP)], especially because I got to learn a little better.

Although it is important for all students to have access to the general education environment, it is equally important to provide the student with an environment where they can thrive and achieve their highest potential. These options should not be exclusive of one another. Even better, perhaps the label special education can be removed and a menu of environments for different parts of the student's day can be created instead.

There is a need to create full special education classroom environments without the stigma of being in a "special education classroom." In particular for students with ADHD who have the intellectual capacity to succeed academically but require a different curriculum, they require a slower pace and environmental and behavioral modifications. The ADHD student works best when in a very structured environment with no more than 15 students in a class and with modifications for work structure as well as work time structure as they require frequent breaks and more flexibility or choice to jump between assignments in addition to consistency (Loe & Feldman, 2005). These types of modifications and accommodations are best suited for

what is considered a special education classroom then the general education classroom where there can be up to 34 students to one teacher.

In an effort to provide all students their right to be treated equally, we are denying them the right to be different and receive instruction that meets their needs not that of the general population. Placement of a student in specialized programs is discouraged under our current special education guidelines. Instead of rewarding efforts and looking at the growth made by students in specialized programs, the system focuses their attention on the percentage of students within a school or district placed in these programs with truly little regard for their level of success. The appropriate part of the term *free appropriate public education* is often ignored or translated to mean the general education classroom without regard to the student's true needs.

The implications for the educational system overall are many. Ultimately, the way the educational setting is structured and the style in which teachers approach instruction is outdated. Today's student and today's society have different needs and life is quite different than in the nineteenth century. All of these factors need to be taken into consideration and adjustments to instructional style and expectations for students with special needs require a new look. Perhaps grade level systems are no longer adequate to meet today's needs.

*In the workplace.* Policy also needs to be examined in relation to training and opportunities for individuals with ADHD. Many employees with great potential end up out of a job due to their difficulties with organization, time management, social skills, and lack of productivity among other difficulties (Barkley, 2015; Barkley et al., 2008). People with ADHD are very capable, but they have limitations that are beyond their control that need to be taken into consideration in the work environment. For example, making sure that the new employee has a written manual for daily procedures and providing time for hands-on practice while following a

trainer would help the employee with ADHD function much better, and it would help prevent mistakes because the employee forgot how to do part of the job as they would have a manual to fall back on.

**Theory.** The results of this study support the transformative framework, which seeks to gain insight that will help bring about positive changes in society (Cresswell & Poth, 2018; Merriam & Tisdell, 2016). Through the one-on-one interviews with the participants, this researcher was able to contribute more information about the learning and personal experiences of individuals that live with ADHD and their struggles. In this manner, this researcher aimed to contribute to the current body of knowledge and help the field come closer to bringing about viable solutions that will make it possible for children and adults with ADHD to live more fulfilling and less stressful school experiences.

The participants' experiences supported Bronfenbrenner's theory of human development. This theory is founded on the concept that the environment and the individual have an effect on one another. This was true for all of the participants in this study beginning with the immediate family dynamics in which parents and sibling behavior and expectations shape the life of the participants each in a different way while simultaneously, the behaviors and struggles of the participants have an effect on the family unit.

The same is true for the extended family as well. When extending this into the school setting, the behavior of teachers and administrators and that of the students with ADHD are significantly connected, and in turn, the outcomes then connect to the ability of the student to achieve their goals and find their place in society. Successful students will most likely be able to positively contribute to society. On the other hand, many students, who struggle academically, will begin contributing in a negative early on in their education and possibly even incur in a life

of crime. In this way, the layers of effect are connected from the individual, to the family unit, to the school community, and eventually, the effect will grow into the immediate community and society at large.

The participants interviewed for this study are a match for the disability theory. All five participants consider their ADHD as part of who they are rather than a condition or disability. Some of the participants expressed that they would prefer that ADHD was not referred to as a condition because it makes it sound like something negative. The assumptions made about individuals diagnosed with ADHD are not necessarily the perceptions of the individuals. The participants do not see themselves as broken and in need of repair. They acknowledge having obstacles that stand in the way of achieving their objectives, but they do not perceive their need to find a way to overcome those obstacles as any different as that of others without the label who must also overcome obstacles of their own.

At the same time, however, the participants in this study acknowledge being entitled to consideration and understanding by others of their needs and understanding of their limitations, which they have no control over. When looking at the needs and limitations of individuals with an ADHD diagnosis and through the lens of the disability theory, society at large has a responsibility towards the individuals with ADHD: a responsibility to find ways in which these individuals can successfully integrate into society and positively contribute to it instead of being looked at as defective or less capable and thus less accepted in society.

The participants expressed that their motivation for getting involved in this study was to help make things better for other students and adults with ADHD. George stated, "The main reason I am here, is because I wish somebody would have helped me when I was little."

#### **Recommendations for Further Research**

The data from this study could be the platform to further investigate the outcomes for adult females with ADHD. The female participant in this study has the most struggles compared to the rest of the participants. It would be valuable to explore outcomes for females and compare them to those of males.

Another recommendation for future research would be to explore teacher-student relations for students with ADHD who have completed their basic studies outside of the United States. There was only one participant who reported mostly positive teacher-student interactions, and that participant is unique in that most of his basic studies took place outside of the United States.

The third recommendation would be to duplicate this research with a larger number of participants and utilizing the Kane Difficulties Assessment (KLDA) which is a learning disabilities and ADHD screening tool for college students aged 17 to 99. This would provide future researchers with current data and a means to make comparisons. Additionally, the participants in the study could benefit from gaining insight and current information about their ADHD and their academic strengths and weaknesses by academic area and much more.

#### Conclusion

As participant George stated, "One of the greatest challenges of becoming an adult with ADHD is learning how to manage your daily life activities in order to meet your daily obligations." This phenomenological study explored the lived experiences of individuals ages 18 through 40. The research shows that individuals with ADHD encounter numerous obstacles in their journey from elementary school years into their adult life either in the college environment or work environment. The same obstacles that have made it difficult for the participants to

positively interact with peers, family, and educators as children continue to pose a problem for them as adults, only now dealing with even higher family expectations, supervisors, coworkers, and clients.

Difficulties with memory, lack of focus, and limited attention span continue to be challenging for individuals with ADHD now in their everyday adult activities such as driving, completing household chores, or dealing with work related tasks. In the workplace, they may experience difficulties following instructions and completing job assignments, keeping track of appointments or deadlines, or carrying on a long conversation, and organizing their work and home activities. For those in college, the difficulties are similar: trouble remembering information from a lecture, organizing materials and class schedules, keeping appointments, or completing assignments in a timely manner.

For many individuals with ADHD, comorbid conditions are an issue that makes life more complex. These conditions included Tourette 's Syndrome, anxiety, and depression, in addition to processing disorders and learning disabilities.

The difference between dealing with ADHD as children and dealing with ADHD as an adult is that children are dependent upon parental action to find solutions to their struggles with ADHD. Adults, on the other hand, given the appropriate level of awareness and information about their ADHD, can actively find ways to overcome or reduce the troublesome characteristic or area of need. Such was the case for many of the study participants who despite their struggles have learned to manage their symptoms of ADHD and thrive. They have found ways to make every day activities less stressful and overcome their challenges to lead fuller and fulfilling lives to the best of their ability.

Individuals with ADHD are creative, active, and want nothing more than to be regarded as bright and capable members of society. They are resilient and motivated to achieve their goals. Through the use of technology, they have been able to establish daily routines that make remembering important tasks or appointments less trying. Individuals with ADHD proactively seek information about their brain function and actively find techniques like practicing meditation and mindfulness to help with comorbid conditions like anxiety and depression and to improve their focus and attention span. In conjunction with medication, individuals with ADHD have found counseling and activities like therapy and social-skills groups helpful.

This study found that as in previous studies of Daley and Birchwood (2009) and Rogers and Meek (2015) the support of parents—in particular, the mother—is a key factor in fostering a sense of empowerment in an individual with ADHD, which gives way to better outcomes. As in the study by Faraone et al. (2017), sibling relationships are an area which needs to be further investigated and supported. Often siblings feel a sense of resentment towards the child with ADHD because of the excessive care and attention these individuals require, which is taken away from their siblings.

Although there is still much work ahead for scientists to explore the root causes of ADHD and find more effective solutions to ameliorate the symptoms associated with this disorder, every day, scientists, and other professionals in the field find new and better clues. Given the wide range of impact the manifestation of ADHD has upon the individual, their families, the community, and society at large, it is imperative to accelerate the efforts to identify the causes of ADHD and thus find effective treatments, supports and solutions. Simultaneously, it is also imperative to inform parents, teachers, administrators, and policymakers about ADHD,

what works and what does not work, particularly as it relates to motivation, behavior management, and executive functions.

In closing, ADHD does not have to translate into negative outcomes. Successful outcomes are possible. It is important to be an informed consumer of information and to take a proactive approach and seek medical professionals who are well versed in ADHD and can provide a multi-disciplinary system that can follow the student from childhood until early adulthood. It is important to interpret the information provided in this study, including the results indicating that labeling an individual with ADHD is not a one size fits all disability. Thus, an ADHD diagnosis does not have the same implications for every individual. Through scientific advances, technological advances, and the continued flow of information regarding ADHD, systems and opportunities are improving. Individuals with ADHD come with many different characteristics, which make them unique, and through their uniqueness they enrich our view of the world as we learn to see it through their eyes.

#### References

- Abbott, S. (2016, February 18). Student engagement definition The Glossary of Education Reform. Retrieved from http://edglossary.org/student-engagement
- Adi-Japha, E., Landau, Y. E., Frenkel, L., Teicher, M., Gross-Tsur, V., & Shalev, R. S. (2007).
  ADHD and Dysgraphia: Underlying Mechanisms. *Cortex*, 43(6), 700–709.
  DOI: https://doi.org/10.1016/S0010-9452(08)70499-4. Retrieved from
  https://pdfs.semanticscholar.org/4ae1/0d2257d5611949c6d62c55125578b215b372.pdf
- Al-Busaidi, Z. Q. (2008). Qualitative research and its uses in health care. Sultan Qaboos University Medical Journal, 8(1), 11–19. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3087733/
- Al Yahmady, H. H., & Al Abri, S. S. (2013). Using NVivo for data analysis in qualitative research. *International Interdisciplinary Journal of Education*, 2(2), 181–186. doi:10.12816/0002914
- American Academy of Pediatrics, Committee on Quality Improvement, Subcommittee on Attention-Deficit/Hyperactivity Disorder. (2000). Clinical practice guideline: Diagnosis and evaluation of the child with attention-deficit/hyperactivity disorder. *PEDIATRICS*, 105(5), 1158–1170. doi:10.1542/peds.105.5.1158
  Retrieved from:

http://pediatrics.aappublications.org/content/pediatrics/105/5/1158.full.pdf

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: APA. Retrieved from https://psicovalero.files.wordpress.com/2014/06/dsm-v-manual-diagnc3b3stico-yestadc3adstico-de-los-trastornos-mentales.pdf Americans With Disabilities Act of 1990, Pub. L. No. 101-336, 104 Stat. 328 (1990)

Archer, A. L. & Hughes, C. A. (2011). Exploring the foundations of explicit instruction. New York, NY: Guilford Press. Retrieved from https://explicitinstruction.org/download/sample-chapter.pdf

Asherson, P., Akehurst, R., Kooij, J. J., Huss, M., Beusterien, K., Sasane, R., ... & Hodgkins, P. (2012). Under diagnosis of adult ADHD: Cultural influences and societal burden. *Journal of Attention Disorders*, *16*(5 Suppl), 20S–38S.
http://journals.sagepub.com/doi/pdf/10.1177/1087054711435360
doi:10.1177/1087054711435360

- Attention. (n.d.) In *Merriam-Webster's student dictionary*. Retrieved from http://wordcentral.com/cgi-bin/student?attention
- Baddeley, A. (2007). *Working memory, thought, and action*. New York, NY: Oxford University Press.
- Barkley, R. (2016). Chapter 7: Classroom Management Considerations. *In Managing ADHD in school: The best evidence-based methods for teachers [*Kindle version] (pp. 622–735).
   Eau Claire, WI: PESI Publishing & Media.
- Barkley, R. A. (1997). Behavioral inhibition, sustained attention, and executive functions:
  Constructing a unifying theory of ADHD. *Psychological Bulletin*, *121*(1), 65–94.
  Retrieved from http://dx.doi.org.cupdx.idm.oclc.org/10.1037/0033-2909.121.1.65
- Barkley, R. A. (2002). Major life activity and health outcomes associated with attentiondeficit/hyperactivity disorder. *Journal of Clinical Psychiatry*, *63*(Suppl. 12), 10–15.

- Barkley, R. A. (2011). *The 18 principles of managing a child with ADHD*. Retrieved from http://www.caddac.ca/cms/CADDAC\_pdf/BarkleyADHD20BestManagementPrinciples. pdf
- Barkley, R. A. (2014). Research findings. *The ADHD Report*, 22(3), 12–14. Retrieved from http://dx.doi.org.cupdx.idm.oclc.org/101521adhd201422312
- Barkley, R. A. (2015). Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment (4th ed.). New York, NY: Guilford Press
- Barkley, R. A., & Fischer, M. (2018) Time reproduction deficits at young adult follow-up in childhood ADHD: The role of persistence of disorder and executive functioning.
   Developmental Neuropsychology, 44(1), 1–21 DOI: 10.1080/87565641.2018.1541992
- Barkley, R. A., Fischer, M., Smallish, L., & Fletcher, K. (2002). The persistence of attentiondeficit/hyperactivity disorder into young adulthood as a function of reporting source and definition of disorder. *Journal of Abnormal Psychology*, *111*(2), 279–289. http://dx.doi.org.cupdx.idm.oclc.org/10.1037/0021-843X.111.2.279
- Barkley, R. A., Fischer, M., Smallish, L., & Fletcher, K. (2004). Young adult follow-up of hyperactive children: antisocial activities and drug use. *Journal of Child Psychology and Psychiatry*, 45(2), 195–211. doi:10.1111/j.1469-7610.2004.00214.x Retrieved from http://onlinelibrary.wiley.com.cupdx.idm.oclc.org/doi/10.1111/j.1469-7610.2004.00214.x/epdf
- Barkley, R. A., Fischer, M., Smallish, L., & Fletcher, K. (2006). Young adult outcome of hyperactive children: Adaptive functioning in major life activities. *Journal of the American Academy of Child & Adolescent Psychiatry*, 45(2), 192–202. http://dx.doi.org/10.1097/01.chi.0000189134.97436.e2

- Barkley, R. A., & Murphy, K. R. (2010). Impairment in occupational functioning and adult ADHD: The predictive utility of executive function (EF) ratings versus EF tests. *Archives* of Clinical Neuropsychology, 25(3), 157–173. http://doi.org/10.1093/arclin/acq014
- Barkley, R. A., & Murphy, K. R. (2007). Comorbid psychiatric disorders in adults with ADHD. *The ADHD Report*, *15*(2), 1–7. doi:10.1521/adhd.2007.15.2.1
- Barkley, R. A., Murphy, K. R., & Fischer, M. (2007). Adults with ADHD: Clinic-referred cases vs. children grown up. *The ADHD Report*, 15(5), 1–7,13. Retrieved from http://cupdx.idm.oclc.org/login?url=https://search-proquestcom.cupdx.idm.oclc.org/docview/210902661?accountid=10248
- Barkley, R. A., Murphy, K. R., & Fisher, M. (2008). *ADHD in adults: What the science says* [Kindle version]. New York, NY: Guilford.
- Brinkmann, S., Jacobsen, M. H., & Kristiansen, S. (2014). Historical overview of qualitative research in the social sciences. In *The Oxford handbook of qualitative research* (pp. 17-42). Retrieved from

https://www.researchgate.net/profile/Costas\_Drossos/post/How\_does\_qualitative\_researc h\_generate\_propositions\_and\_then\_refine\_them\_into\_hypotheses\_for\_quantitative\_empi rical\_testing2/attachment/59d633b3c49f478072ea2551/AS%3A273646319276040%4014 42253774568/download/Historical+Overview+of+Qualitative+2+Research+in+the+Soci al+Sciences.In+Patricia+Leavy-The+Oxford+Handbook+of+Qualitative+Research-Oxford+University+Press+%282014%29.pdf Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research*, 26(13), 1802–1811. Retrieved from

https://doi-org.cupdx.idm.oclc.org/10.1177/1049732316654870

Brassett-Grundy, A. & Butler, N. (2004). Prevalence and adult outcomes of attentiondeficit/hyperactivity disorder: Evidence from a 30-year prospective longitudinal study. Bedford group for life course and statistical studies occasional paper: No.2. London, UK: Institute of Education, University of London. Retrieved from https://pdfs.semanticscholar.org/2335/a2339dc2746b5f58015bc8029b2ccf9fa237.pdf

Breggin, P. R. (1999). Psychostimulants in the treatment of children diagnosed with ADHD:
Risks and mechanism of action. *International Journal of Risk & Safety in Medicine*, 12(1), 3–35. Retrieved from http://breggin.com/wpcontent/uploads/2008/01/psychostimulantsin.pbreggin.1999.pdf

- Bull, R., Espy, K. A., & Wiebe, S. A. (2008). Short-term memory, working memory, and executive functioning in preschoolers: Longitudinal predictors of mathematical achievement at age 7 years. *Developmental Neuropsychology*, *33*(3), 205–228. doi:10.1080/87565640801982312
- Chenail, R. J. (2009). Interviewing the investigator: Strategies for addressing instrumentation and researcher bias concerns in qualitative research. *The Qualitative Report*, *13*(4), 14–21. Retrieved from http://nsuworks.nova.edu/tqr/vol13/iss4/14

- Chien, W. T., Ho, S. C., & Wang, L. (2011). Parents' perceptions of care-giving to a child with attention deficit hyperactivity disorder: An exploratory study. *Contemporary Nurse: A Journal for the Australian Nursing Profession, 40*(1), 41–56. Retrieved from http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docvi ew/1022283296?accountid=10248
- Children and Adults with Attention-Deficit/Hyperactivity Disorder. (2015). *Overview*. Retrieved from https://chadd.org/for-parents/overview/
- Chronis, A. M., Chacko, A., Fabiano, G. A., Wymbs, B. T., & Pelham, Jr., W. E. (2004).
  Enhancements to the behavioral parent training paradigm for families of children with ADHD: Review and future directions. *Clinical Child and Family Psychology Review*, 7(1), 1–27. doi:10.1023/b:ccfp.0000020190.60808.a4
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry: Experience and story in qualitative research*. (pp.48-63). Retrieved from http://www.sabatinomangini.com/uploads/4/5/9/6/4596832/narrative\_inquiry\_--\_\_\_\_clandinin\_\_connelly.pdf
- Cohen, D., & Crabtree, B. (2006, July). *Qualitative research guidelines project*. Retrieved from http://www.qualres.org/HomeInte-3595.html
- Conceptualization. (2017). In Oxford English Dictionary. Retrieved from https://en.oxforddictionaries.com/definition/conceptualization

- Corominas, J., Klein, M., Zayats, T., Rivero, O., Ziegler, G. C., Pauper, M., ... Lesch, K. (2018). Identification of ADHD risk genes in extended pedigrees by combining linkage analysis and whole-exome sequencing. Retrieved from https://www.nature.com/articles/s41380-018-0210-6
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: SAGE.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Thousand Oaks, CA: SAGE.
- Daley D., & Birchwood, J. (2009). ADHD and academic performance: Why does ADHD impact on academic performance and what can be done to support ADHD children in the classroom? *Child: Care, Health and Development*, *36*(4), 455–464. doi:10. 1111/j. 1365-2214. 2009. 01046. x

Danciu, E. (2011). *Multidisciplinary approach of the attention deficit hyperactivity disorder* (*ADHD*) between hope and reality. Retrieved from http://ac.elscdn.com/S1877042811007701/1-s2.0-S1877042811007701-main.pdf?\_tid=1d4d91b4b836-11e6-ac48-

00000aab0f02&acdnat=1480645504\_5860b7833e27d9aea51ef19575380856

- Danielson, M. L., Bitsko, R. H., Ghandour, R. M., Holbrook, J. R., Kogan, M. D., & Blumberg,
  S. J. (2018). Prevalence of parent-reported ADHD diagnosis and associated treatment among U.S. children and adolescents, 2016. *Journal of Clinical Child & Adolescent Psychology*, 47(2), 199–212. doi:10.1080/15374416.2017.1417860
  Retrieved from: https://www-tandfonline-com.cupdx.idm.oclc.org/doi/pdf/10.1080/15374416.2017.1417860?needAccess=true
- De Graaf, R., Kessler, R. C., Fayyad, J., Ten Have, M., Alonso, J., Angermeyer, M., ... Posada-Villa, J. (2008). The prevalence and effects of adult attention-deficit/hyperactivity disorder (ADHD) on the performance of workers: Results from the WHO world mental health survey initiative. *Occupational and Environmental Medicine*, 65(12), 835–842. doi:10.1136/oem.2007.038448
- De Sanctis, V. A., Nomura, Y., Newcorn, J. H., & Halperin, J. M. (2012). Childhood maltreatment and conduct disorder: Independent predictors of criminal outcomes in ADHD youth. *Child Abuse & Neglect*, *36*(11-12), 782–789. doi:10.1016/j.chiabu.2012.08.003
- Desoete, A., Roeyers, H., & De Clercq, A. (2004). Children with mathematics learning disabilities in Belgium. *Journal of Learning Disabilities*, 37(1), 50–61. https://doi.org/10.1177/00222194040370010601
- Dimic, N., & Orlov, V. (2014, April 1). Entrepreneurial tendencies among people with ADHD. *SSRN Electronic Journal*, *13*(3), 187–204. doi:10.2139/ssrn.2405366
- Dimock, M. (2018). *Questionnaire design Pew Research Center methods*. Retrieved from http://www.pewresearch.org/methods/u-s-survey-research/questionnaire-design/

Division of Human Development and Disability, National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention. (2018, September 21). *ADHD data & statistics*. Retrieved from https://www.cdc.gov/ncbddd/adhd/data.html

 DuPaul, G. J., Schaughency, E. A., Weyandt, L. L., Tripp, G., Kiesner, J., Ota, K., & Stanish, H.
 (2001). Self-Report of ADHD symptoms in university students. *Journal of Learning Disabilities*, *34*(4), 370–379. doi:10.1177/002221940103400412

DuPaul, G. J., Weyandt, L. L., O'Dell, S. M., & Varejao, M. (2009). College students with ADHD: Current status and future directions. Retrieved from: https://www.researchgate.net/publication/26684298\_College\_Students\_With\_ADHD\_Cu rrent\_Status\_and\_Future\_Directions

- Eklund, H., Cadman, T., Findon, J., Hayward, H., Howley, D., Beecham, J., ... Glaser, K. (2016). Clinical service use as people with attention deficit hyperactivity disorder transition into adolescence and adulthood: A prospective longitudinal study. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4940923/
- Ersoy, M. A., & Ersoy, H. T. (2015). *Gender-role attitudes mediate the effects of adult ADHD on marriage and relationships*. Retrieved from https://doi.org/10.1177/1087054715618789
- Faraone, S. V. (2005). The scientific foundation for understanding attention-deficit/hyperactivity disorder as a valid psychiatric disorder. *European Child & Adolescent Psychiatry*, 14(1), 1–10. Retrieved from http://dx.doi.org.cupdx.idm.oclc.org/10.1007/s00787-005-0429-z

Faraone, S. V., Biederman, J., Chen, W. J., Milberger, S., Warburton, R., & Tsuang, M. T. (1995). Genetic heterogeneity in attention-deficit hyperactivity disorder (ADHD):
Gender, psychiatric comorbidity, and maternal ADHD. *Journal of Abnormal Psychology*, *104*(2), 334–345. Retrieved from http://dx.doi.org.cupdx.idm.oclc.org/10.1037/0021-843X.104.2.334

Faraone, S. V., Schachar, R. J., Barkley, R. A., Nullmeier, R., & Sallee, F. R. (2017). Early morning functional impairments in stimulant-treated children with attention-deficit/hyperactivity disorder versus controls: impact on the family. *Journal of Child and Adolescent Psychopharmacology*, 27(8), 715–722. doi:10.1089/cap.2016.0164
Retrieved from:

https://www.researchgate.net/publication/315927408\_Early\_Morning\_Functional\_Impair ments\_in\_Stimulant-Treated\_Children\_with\_Attention-

DeficitHyperactivity\_Disorder\_Versus\_Controls\_Impact\_on\_the\_Family

Faraone, S. V., Sergeant, J., Gillberg, C., & Biederman, J. (2003). The worldwide prevalence of ADHD: Is it an American condition? *World Psychiatry*, 2(2), 104–113. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1525089/

PMID: 16946911

file:///E:/CONCORDIA/EDDR%20698/STAGE%203/CH%204/Literature/Academic%2 0and%20Educational%20Outcomes%20of%20Children%20With%20ADHD\_Loe\_Heidi \_Feldman\_2005.pdf

Firmin, M. W., & Phillips, A. (2009). A qualitative study of families and children possessing diagnoses of ADHD. *Journal of Family Issues*, 30(9), 1155–1174. doi:10.1177/0192513x09333709

- Fleischmann, A., & Miller, E. C. (2012). Online narratives by adults with ADHD who were diagnosed in adulthood. *Learning Disability Quarterly*, 36(1), 47–60. Retrieved from http://www.jstor.org/stable/24570133
- Fleming, A. P., & McMahon, R. J. (2012). Developmental context and treatment principles for ADHD among college students. *Clinical Child and Family Psychology Review*, 15(4), 303–329. Retrieved from http://dx.doi.org.cupdx.idm.oclc.org/10.1007/s10567-012-0121-z
- Fletcher, J., & Wolfe, B. (2009). Long-term consequences of childhood ADHD on criminal activities. *The Journal of Mental Health Policy and Economics*, *12*(3), 119–138.
- Focus. (n.d.) In *Merriam-Webster's student dictionary*. (n.d.). Retrieved from http://wordcentral.com/cgi-bin/student?book=Student&va=focus
- Franke, B., Faraone, S. V., Asherson, P., Buitelaar, J., Bau, C. H., Ramos-Quiroga, J. A., & Mick, E. (2012). The genetics of attention deficit/hyperactivity disorder in adults, a review. *Molecular Psychiatry*, *17*(10), 960–987. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/22105624
- Fuermaier, A. B., Tucha, L., Koerts, J., Aschenbrenner, S., Weisbrod, M., Lange, K. W., & Tucha, O. (2013). Source discrimination in adults with attention deficit hyperactivity disorder. *PLoS ONE*, 8(5), 1–8. doi:10.1371/journal.pone.0065134
  Retrieved from

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3669259/pdf/pone.0065134.pdf

Gathercole, S. E., Tiffany, C., Briscoe, J., & Thorn, A. (2005). Developmental consequences of poor phonological short-term memory function in childhood: A longitudinal

study. *Journal of Child Psychology and Psychiatry*, *46*(6), 598–611. doi:10. 1111/j. 1469-7610. 2004. 00379. X

- Gharibi, H., & Gholizadeh, Z. (2011). Phenomenology of mothers' experiences in living with children with AD/HD disorder. *Procedia - Social and Behavioral Sciences*, 30, 1630– 1634).
- Ghodse, H. (2007). 'Uppers' keep going up. *The British Journal of Psychiatry*, *191*(4), 279–281. doi:10.1192/bjp.bp.107.0352121634. doi:10.1016/j.sbspro.2011.10.316
- Ginsberg, Y., Hirvikoski, T., & Lindefors, N. (2010). Attention deficit hyperactivity disorder (ADHD) among longer-term prison inmates is a prevalent, persistent, and disabling disorder. Retrieved from

https://bmcpsychiatry.biomedcentral.com/articles/10.1186/1471-244X-10-112

- Glutting, J. J., Youngstrom, E. A., & Watkins, M. W. (2005). ADHD and college students: Exploration and confirmatory factor structures with student and parent data. *Psychological Assessment*, 17(1), 44–45. doi:10.1037/1040-3590.17.1.44 http://edpsychassociates.com/Papers/ADHD\_Structure.pdf
- Green, A. L., & Rabiner, D. L. (2012). What do we really know about ADHD in college students? *Neurotherapeutics*, *9*(3), 559–568. http://doi.org/10.1007/s13311-012-0127-8
- Greene, R. W., Beszterczey, S. K., Katzenstein, T., Park, K., & Goring, J. (2002). Are students with ADHD more stressful to teach? Patterns of teacher Stress in an elementary school sample. *Journal of Emotional and Behavioral Disorders*, *10*(2), 79–89. doi:10.1177/10634266020100020201
- Gualtieri, C. T. & Johnson, L. G. (2005). ADHD: Is objective diagnosis possible? *Psychiatry* (*Edgmont*), 2(11), 44–53.

Guerra, F. R., & Brown, M. S. (2012). Teacher knowledge of attention deficit hyperactivity disorder among middle school students in South Texas. *RMLE Online*, *36*(3), 1–7. doi:10.1080/19404476.2012.11462096

Retrieved from: https://files.eric.ed.gov/fulltext/EJ989795.pdf

- Guldberg-Kjär, T., Sehlin, S., & Johansson, B. (2012). ADHD symptoms across the lifespan in a population-based Swedish sample aged 65 to 80. *International Psychogeriatrics*, 25(4), 1–19. doi:10.1017/S1041610212002050
- Hadianfard, H. (2014). Child abuse in group of children with attention deficit-hyperactivity disorder in comparison with normal children. *International Journal of Community Based Nursing and Midwifery*, 2(2), 77–84.
- Hallowell, E. M., & Ratey, J. J. (2005). *Delivered from distraction: Getting the most out of life with attention deficit disorder*. New York, NY: Ballantine Books.

Hamed, A. M., Kauer, A. J., & Stevens, H. E. (2015). Why the diagnosis of attention deficit hyperactivity disorder matters. Retrieved from https://www.researchgate.net/publication/284798702\_Why\_the\_Diagnosis\_of\_Attention\_ Deficit\_Hyperactivity\_Disorder\_Matters

- Harazni, L. & Alkaissi, A. (2016). The experience of mothers and teachers of attention deficit/hyperactivity disorder children, and their management practices for the behaviors of the child a descriptive phenomenological study. *Journal of Education and Practice*, 7(6), 1–21.
- Harpin, V. A. (2005). *Archives of disease in Childhood*, 90(suppl\_1), i2-i7. doi:10.1136/adc.2004.059006

- Hathaway, R. (1995). Assumptions underlying quantitative and qualitative research: Implications for institutional research. *Research in Higher Education*, *36*(5), 535–562. Retrieved from https://deepblue.lib.umich.edu/bitstream/handle/2027.42/43615/11162\_2005\_Article\_BF 02208830.pdf?sequence=10361-0365/95/1000-0535\$07.50/0
- Hawthorne, S. (2010). Institutionalized intolerance of ADHD: Sources and consequences. *Hypatia*, 25(3), 504–526. Retrieved from http://www.jstor.org.cupdx.idm.oclc.org/stable/40928635
- Heiligenstein, E., Guenther, G., Levy, A., Savino, F., & Fulwiler, J. (1999). Psychological and academic functioning in college students with attention deficit hyperactivity disorder.
  Retrieved from
  http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docvi
  ew/213064063?accountid=10248
- Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2016). Code saturation versus meaning saturation. *Qualitative Health Research*, 27(4), 591–608. doi:10.1177/1049732316665344
- Hewitt-Taylor, J. (2001). Use of constant comparative analysis in qualitative research. Nursing Standard (through 2013), 15(42), 39–42. Retrieved from http://cupdx.idm.oclc.org/login?url=https://search-proquestcom.cupdx.idm.oclc.org/docview/219828755?accountid=10248
- Ho, S., Chien, W., & Wang, L. (2011, August 2). Parents' perceptions of care-giving to a child with attention deficit hyperactivity disorder: An exploratory study. Retrieved from http://dx.doi.org/10.5172/conu.2011.40.1.41

Individuals with Disabilities Education Act. (2004). *Topic areas*. Retrieved from https://sites.ed.gov/idea/topic-areas/#LREU.S.

Institutional Review Board. (n.d.). Institutional policy for human subject research at Concordia University Wisconsin. Retrieved from http://www.cu-portland.edu/academics/fice-research/institutional-review-board

Kane, S. T., Walker, J. H., & Schmidt, G. R. (2011). Assessing college-level learning difficulties and "at riskness" for learning disabilities and ADHD. *Journal of Learning* 

Disabilities, 44(6), 533-542. doi:10.1177/0022219410392045

Retrieved from: https://journals-sagepub-

com.cupdx.idm.oclc.org/doi/pdf/10.1177/0022219410392045

- Kennedy, R. J., Quinlan, D. M., & Brown, T. E. (2016). Comparison of two measures of working memory impairments in 220 adolescents and adults with ADHD. *Journal of Attention Disorders*, 1–6. doi:10.1177/1087054716661232
- Kern, A. & Seabi, J. (2008). Educators' perceptions of attention deficit hyperactivity disorder: An exploratory study. *Journal of Psychology in Africa*, 18(4), 641–644. Retrieved from https://www.researchgate.net/publication/234115918\_Educators%27\_Perceptions\_of\_Att ention\_Deficit\_Hyperactivity\_Disorder\_An\_Exploratory\_Study

- Kessler, R. C., Adler, L., Barkley, R., Biederman, J., Conners, C. K., Demler, O., ... Zaslavsky,
  A. M. (2006). The prevalence and correlates of adult ADHD in the united states: Results from the national comorbidity survey replication. *The American Journal of Psychiatry*, *163*(4), 716–723. Retrieved from http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docvi ew/220163737?accountid=10248
- Kube, D. A., Petersen, M. C., & Palmer, F. B. (2002). Attention deficit hyperactivity disorder:
  Comorbidity and medication use. *Clinical Pediatrics*, *41*(7), 461–469.
  doi:10.1177/000992280204100702
- Kuriyan, A. B., Pelham, W. E., Molina, B. S. G., Waschbusch, D. A., Gnagy, E. M., Sibley, M.
  H., ... Kent, K. M. (2013). Young adult educational and vocational outcomes of children diagnosed with ADHD. *Journal of Abnormal Child Psychology*, *41*(1), 27–41. http://doi.org/10.1007/s10802-012-9658-z
- Lange, K. W., Reichl, S., Lange, K. M., Tucha, L., & Tucha, O. (2010). The history of attention deficit hyperactivity disorder. *Attention Deficit and Hyperactivity Disorders*, 2(4), 241– 255. http://doi.org/10.1007/s12402-010-0045-8
- LeFever, G. B., Villers, M. S., Morrow, A. L., and Vaughn, E. S. (2002), Parental perceptions of adverse educational outcomes among children diagnosed and treated for ADHD: A call for improved school/provider collaboration. *Psychology in Schools.*, *39*(1), 63–71. doi:10.1002/pits.10000

- Lefler, E. K., Sacchetti, G. M., & Del Carlo, D. I. (2016). ADHD in college: A qualitative analysis. *ADHD Attention Deficit and Hyperactivity Disorders*, 8(2), 79–93.
  doi:10.1007/s12402-016-0190-9. Retrieved from https://link-springer-com.cupdx.idm.oclc.org/content/pdf/10.1007%2Fs12402-016-0190-9.pdf
- Lenfesty, K., Reichling, K., & Schultz, T. (n.d.). *Characteristics Narrative research design*. Retrieved from http://edrm600narrativedesign.weebly.com/characteristics.html
- Leone, P. (2002, July). *Collaboration in the juvenile justice system*. Retrieved from http://cecp.air.org/juvenilejustice/docs/Collaboration%20in%20the%20Juvenile%20Justi ce%20System.pdf
- Leslie, L. K. (2002). The role of primary care physicians in attention-deficit/hyperactivity disorder. *Pediatric Annals*, *31*(8), 475–484. doi:10.3928/0090-4481-20020801-07 Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1647398/pdf/nihms-11109.pdf
- Lifford, K. J., Harold, G. T., & Thapar, A. (2008). Parent-child relationships and ADHD symptoms: A longitudinal analysis. *Journal of Abnormal Child Psychology*, *36*(2), 285–96. http://dx.doi.org.cupdx.idm.oclc.org/10.1007/s10802-007-9177-5
- Lin, Y. & Gau, S. S. (2017). Differential neuropsychological functioning between adolescents with attention-deficit/hyperactivity disorder with and without conduct disorder. *Journal* of the Formosan Medical Association, 116(12), 946–955. doi:10.1016/j.jfma.2017.02.009
- Little, C. W., Hart, S. A., Schatschneider, C., & Taylor, J. (2016). Examining associations among ADHD, homework behavior, and reading comprehension: A twin study. *Journal of Learning Disabilities*, 49(4), 410–423. https://doi.org/10.1177/0022219414555715

- Loe, I. M. & Feldman, H. M. (2007). Academic and educational outcomes of children with ADHD. *Ambulatory Pediatrics*, 7(1), 82–90. doi: 10.1016/j.ambp.2006.05.005
- Malterud, K., Siersma, V. D., & Guassora, A. D. (2015). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research*, 26(13), 1753–1760. doi:10.1177/1049732315617444
- Mannuzza, S., Klein, R. G., Abikoff, H., & Moulton, J. L., III, (2004). Significance of childhood conduct problems to later development of conduct disorder among children with ADHD:
   A prospective follow-up study. Retrieved from

http://dx.doi.org.cupdx.idm.oclc.org/10.1023/B:JACP.0000037784.80885.1a

- Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. (2013). Does sample size matter in qualitative research? A review of qualitative interviews in is research. *Journal of Computer Information Systems*, 54(1), 11–22. doi:10.1080/08874417.2013.11645667
- Martin, S. D., & Zirkel, P. A. (2011). Identification disputes for students with attention deficit hyperactivity disorder: An analysis of the case law. *School Psychology Review*, 40(3), 405–422. Retrieved from http://cupdx.idm.oclc.org/login?url=https://search-proquest-com.cupdx.idm.oclc.org/docview/901146368?accountid=10248
- Mason, M. (2010). Sample size and saturation in PhD studies using qualitative interviews. *Forum Qualitative Sozialforschung (FQS)*, *11*(3), 1–19. Retrieved from http://www.qualitative-research.net/index.php/fqs/article/view/1428/3028/

- Mayes, S. D., Calhoun, S. L., & Crowell, E. W. (2000). Learning disabilities and ADHD:
  Overlapping spectrum disorders. *Journal of Learning Disabilities*, *33*(5), 417–424. Retrieved from: https://journals-sagepub
  com.cupdx.idm.oclc.org/doi/pdf/10.1177/002221940003300502
- McNamara, C. (2009). *General guidelines for conducting interviews*. Retrieved from: http://managementhelp.org/evaluatn/intrview.htm
- Meaux, J. B., Green, A., & Broussard, L. (2009). ADHD in the college student: A block in the road. *Journal of Psychiatric and Mental Health Nursing*, *16*(3), 248–256.
  doi:10.1111/j.1365-2850. 2008. 01349. x
- Merriam, S. B., Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed). San Francisco, CA: Jossey-Bass.
- Merriam-Webster Dictionary. (n.d.). *Resilience*. In Retrieved from https://www.merriamwebster.com/dictionary/resilience
- Mertens, D. M. (2007). Transformative paradigm. *Journal of Mixed Methods Research*, 1(3), 212–225. doi:10.1177/1558689807302811

Mertens, D. M. (2009). Transformative research and evaluation. New York, NY: Guilford.

Miller, T. & Leger, M. (2003). A very childish moral panic: Ritalin. *Journal of Medical Humanities*, 24(1/2), 9–33. Retrieved from //doi-

or,g.cupdx.idm.oclc.org/10.1023/A:1021301614509

- Moustakas, C. (1994). *Phenomenological research methods* [eBook Trial Edition]. Thousand Oaks, CA: SAGE.
- NIDA. (2012, December 14). *Comorbidity*. Retrieved from https://www.drugabuse.gov/related-topics/comorbidity

- Oliver, M. (1998). Theories of disability in health practice and research. *British Medical Journal*, *317*(7170), 1446–1449.
- Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health services research*, *34*(5 Pt 2), 1189–1208.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.), pp 169-186. Retrieved from http://legacy.oise.utoronto.ca/research/fieldcentres/ross/ctl1014/Patton1990.pdf
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Thousand Oaks, CA: SAGE.
- Peters, S. (2015). ADHD: The Ultimate guide to attention deficit hyperactivity disorder understanding symptoms, diagnosis, and treatment for ADHD [Kindle Edition]. Retrieved from https://www.goodreads.com/book/show/25367433-adhd
- Poggenpoel, M. & Myburgh, S. (2003). The researcher as research instrument in educational research: A possible threat to trustworthiness? *Education*, *124*(2), 418–423.
- Polit, D. F., & Beck, C. T. (2010). Generalization in quantitative and qualitative research: Myths and strategies. *International Journal of Nursing Studies*, 47(11), 1451–1458.
  doi:10.1016/j.ijnurstu.2010.06.004. Retrieved from:
  file:///D:/Everyday%20Files/CONCORDIA/EDDR%20697/DrAlba/Chapter%201%20Re
  ferences/Generalization%20in%20quantitative%20and%20qualitative%20Research\_Myt hs%20and%20Strategies\_Polit\_2010.pdf

Power, T. J., Werba, B. E., Watkins, M. W., Angelucci, J. G., & Eiraldi, R. B. (2006). Patterns of parent-reported homework problems among ADHD-referred and non-referred children. *School Psychology Quarterly*, *21*(1), 13–33. doi:10.1521/scpq.2006.21.1.13
Retrieved from:

https://www.researchgate.net/publication/232503455\_Patterns\_of\_parentrated\_homework\_problems\_among\_ADHD-referred\_and\_nonreferred\_children\_School\_Psychology\_Quarterly\_21\_13-33/download

- Pratt, T., Cullen, F., Blevins, K., Daigle, L., & Unnever, J. (2002). The relationship of attention deficit hyperactivity disorder to crime and delinquency: A meta-analysis. International *Journal of Police Science & Management, 4*(4), 344–360. Retrieved from http://journals.sagepub.com.cupdx.idm.oclc.org/doi/pdf/10.1350/ijps.4.4.344.10873
- Purdie, N., Hattie, J., & Carroll, A. (2002). A review of the research on interventions for attention deficit hyperactivity disorder: What works best? *Review of Educational Research*, 72(1), 61–99. doi:10.3102/00346543072001061. Retrieved from: https://www-jstor-org.cupdx.idm.oclc.org/stable/pdf/3516074.pdf?refreqid= excelsior%3Aa2405c387423ed55a05201e2ff6d93c6
- Quinn, M., & Lynch, A. (2016). Is ADHD a 'real' disorder? *Support for Learning*, *31*(1), 59–70. doi:10.1111/1467-9604.12114

- Rabiner, D. L., Anastopoulos, A. D., Costello, J., Hoyle, R. H., & Swartzwelder, H. S. (2007). Adjustment to college in students with ADHD. *Journal of Attention Disorders*, *11*(6), 689–699. doi:10.1177/1087054707305106. Retrieved from http://journals.sagepub.com.cupdx.idm.oclc.org/action/doSearch?field1=AllField&text1= Adjustment+to+College+in+Students+With+ADHD&field2=AllField&text2=&Ppub=& Ppub=&AfterYear=&BeforeYear=&access=
- Ramos-Quiroga, J. A., Nasillo, V., Fernandez-Aranda, F., & Casas, M. (2014). Addressing the lack of studies in attention-deficit/ hyperactivity disorder in adults. *Expert Reviews Neurother*, 14(5), 553–567. Retrieved from DOI: 10.1586/14737175.2014.908708
- Reimherr, F. W, Williams, E. D., Strong, R. E., Mestas, R., Soni, P., & Marchant, B. K. (2007).
  A double-blind, placebo-controlled, crossover study of osmotic release oral system
  methylphenidate in adults with ADHD with assessment of oppositional and emotional
  dimensions of the disorder. *Journal of Clinical Psychiatry*, 68, 93–101.
- Rogers, M., & Meek, F. (2015). Relationships matter: Motivating students with ADHD through the teacher-student relationship. *Perspectives on Language and Literacy*, *41*(1), 21–24.
  Retrieved from http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docvi

ew/1673050368?accountid=10248

- Rosa, E. M., & Tudge, J. (2013). Urie Bronfenbrenner's theory of human development: Its evolution from ecology to bioecology. *Journal of Family Theory & Review*, 5(4), 243– 258. doi:10.1111/jftr.12022
- Scientific Reasoning Research Institute. (2016). *Collaborative group techniques*. Retrieved from https://www.srri.umass.edu/topics/collaborative-group-techniques

Senior, J. (2009). ADHD: Inclusion or exclusion in mainstream Irish schools. In S. Drudy (Ed.), *Education in Ireland: Challenge and change* (pp. 89–103). Retrieved from: https://books.google.com/books?hl=en&lr=&id=qOb4AwAAQBAJ&oi=fnd&pg=PT5&d q=Senior+2009+ADHD:+inclusion+or+exclusion+in+mainstream+Irish+schools&ots=6j PB582PJh&sig=OwSCDl4aWYwsQ4hEZ0YgEOTITNg#v=onepage&q=subjective&f=f alse

Shaw, P., Stringaris, A., Nigg, J., & Leibenluft, E. (2014). Emotion dysregulation in attention deficit hyperactivity disorder. *The American journal of psychiatry*, *171*(3), 276–293.
Retrieved from:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4282137/pdf/nihms646954.pdf

- Shaywitz, S., Gruen, J., Mody, M., & Shaywitz, B. (2009). Dyslexia. In R.G. Schawarts (Ed.), *Handbook of child language disorders* [Kindle Edition] (pp. 115–139). New York, NY: Psychology Press.
- Simon-Dack, S. L., Rodriguez, P. D., & Marcum, G. D. (2016). Study habits, motives, and strategies of college students with symptoms of ADHD. *Journal of Attention Disorders*, 20(9), 775–781. doi:10.1177/1087054714543369
- Stronge, J., & Hindman, J. (2003). Hiring the best teachers. *Educational Leadership*, 60(8), 48–
  52. Retrieved from http://www.esc4.net/Assets/hiring-the-best-teachers.pdf
- Sullivan, C. M., & Goodman, L. (2015). *A guide for using the trauma informed practices (TIP) scales.* Retrieved from www.dvevidenceproject.org/evaluation-tools
- Sweetman, D., Badiee, M., & Creswell, J. W. (2010). Use of the transformative framework in mixed methods studies. *Qualitative Inquiry*, 16(6), 441–454. doi:10.1177/1077800410364610

- Tait, G. (2001). Pathologizing difference, governing personality. Asia-Pacific Journal of Teacher Education, 29(1), 93–102. doi:10.1080/13598660120032996
- Teo, T. (2013). *Handbook of quantitative methods for educational research*. Retrieved from https://www.sensepublishers.com/media/1794-handbook-of-quantitative-methods-foreducational-research.pdf
- Turner, D. W., III (2010). Qualitative interview design: A practical guide for novice investigators. *The Qualitative Report*, 15(3), 754–760. Retrieved from http://www.nova.edu/ssss/QR/QR15-3/qid.pdf https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1178&context=tqr
- Types of Learning Disabilities. (2017). Retrieved from https://ldaamerica.org/types-of-learningdisabilities
- Ulug, M., Ozden, M. S., & Eryilmaz, A. (2011). The effects of teachers' attitudes on students' personality and performance. *Procedia - Social and Behavioral Sciences*, 30, 738–742. doi:10.1016/j.sbspro.2011.10.144

Retrieved from:

https://www.researchgate.net/publication/271889744\_The\_Effects\_of\_Teachers'\_Attitud es\_on\_Students'\_Personality\_and\_Performance (pdf)

Visser, J., & Jehan, Z. (2009). ADHD: a scientific fact or a factual opinion? A critique of the veracity of attention deficit hyperactivity disorder. *Emotional and Behavioral Difficulties*, 14(2), 127–140. doi:10.1080/13632750902921930
http://www-tandfonline-

com.cupdx.idm.oclc.org/doi/pdf/10.1080/13632750902921930?needAccess=true

- Visser, S. N., Danielson, M. L., Bitsko, R. H., Holbrook, J. R., Kogan, M. D., Ghandour, R. M.,
  ... Blumberg, S. J. (2014). Trends in the parent-report of health care provider-diagnosed and medicated attention-deficit/hyperactivity disorder: United States, 2003– 2011. *Journal of the American Academy of Child & Adolescent Psychiatry*, 53(1), 34– 46.e2. doi:10.1016/j.jaac.2013.09.001. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4473855/pdf/nihms699115.pdf
- Wang, T., Liu, K., Li, Z., Xu, Y., Liu, Y., Shi, W., & Chen, L. (2017). Prevalence of attention deficit/hyperactivity disorder among children and adolescents in China: a systematic review and meta-analysis. Retrieved from:

https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-016-1187-9

- Weyandt, L., & DuPaul, G. (2006). ADHD in college students. *Journal of Attention Disorders,* 10(9), 5–19. Retrieved from doi: 10.1177/1087054705286061
- Wymbs, B. T., Pelham, W. E., Molina, B. S. G., Gnagy, E. M., Wilson, T. K., & Greenhouse, J.
  B. (2008). Rate and predictors of divorce among parents of youth with ADHD. *Journal of Consulting and Clinical Psychology*, *76*(5), 735–744. http://doi.org/10.1037/a0012719

# **Appendix A: Informed Consent**

Concordia University–Portland Institutional Review Board Approved: August 2, 2018; will Expire: August 11, 2019

#### CONSENT FORM

Research Study Title:Through Their Eyes – School and Work Experiences of Adults with ADHD<br/>ages 18 to 40Principal Investigator:Julieta E RobelloResearch Institution:Concordia University–PortlandFaculty Advisor:Professor Audrey E. Rabas

#### Purpose and what you will be doing:

The purpose of this survey is to investigate the barriers and successful strategies individuals with ADHD, ages 18–40, encounter as they make their way through the educational system and into the workplace. We expect approximately 10 volunteers. Each participant will receive a \$20 gift card incentive after completing all of the requirements of the study. We will begin enrollment on January 8, 2018 and end enrollment on December 31, 2018.

To be eligible to participate in this study, you will need to meet the following requirements:

- Be an adult between the ages of 18-40
- Be available to be interviewed by the researcher for a period of approximately 2 to 3 hours
- Have a diagnosis of ADHD and be able to provide one of the following written documents as verification: a psychoeducational evaluation report, an Individualized Education Program document, a 504 plan, a physician's diagnostic report on letterhead with a specific diagnosis of ADHD, or a psychiatrist's or physician's prescription indicating a diagnosis of ADHD and indications.
- **Do Not** have a comorbid condition of Autism, Downs syndrome or other Intellectual Disability diagnosis, blindness, or deafness.
- Speak either English or Spanish
- Have access and be able to communicate via e-mail

**Be willing to** participate in the interview. After the interview, be willing to complete a review of the researcher's transcript of the interview and provide feedback via a password protected Word document sent through a dedicated email account, to the participant within 3 days of the interview or in paper-pen format exchanged between the participant and the researcher. It is estimated that the total participation in this study should take less than 5 hours of your time.

#### **Risks:**

There are some possible risks to participating in this study aside from those associated with providing your information. Although the possibility of these outcomes is unlikely it is important for you to be aware of these possible outcomes. You may experience some feelings of excitement, empowerment, and gratefulness or sadness, anger, longing, frustration, self-consciousness or other similar reactions either during or after your participation in our study. As you re-live and recount earlier or current experiences these feeling might surface without warning. In the event such situation would present itself you may access the following resources for assistance. This resource is provided to you for informational purposes only. The researcher is in no way associated with this organization, nor are they responsible for any costs associated with their services. Any cost incurred would be the sole responsibility of the participant.

## Adult Emergency and Crisis Services

#### If you are experiencing a Behavioral Health emergency, please call 9-1-1.

If you need information about how to handle a mental health crisis, you can talk to a trained counselor who can help with your specific situation. Call the Access and Crisis Line at [redacted]. The toll-free call is available 24-hours a day, 7-days a week (TDD for the hearing impaired: [redacted]). Operators at this line will talk to you about what services are available in your area, for all ages, including mental health services for those with Medi-Cal or no insurance, services for alcohol or drug abuse, suicide prevention, medication needs, and more.

Spanish-speaking counselors are available most hours, as well as language interpreters for 140 languages. Walk-in emergency mental health services are available for adults and older adults who are experiencing a mental health emergency or crisis at the Emergency Psychiatric Unit located at:

#### [Redacted] Psychiatric Hospital

 $http://www.[redacted].gov/hhsa/programs/bhs/mental_health\_services\_adult\_older\_adult/adultemergency\_and\_crisis.html$ 

[redacted] Telephone: [redacted]

We want to reassure you and let you know that we will protect any personal information you

**provide.** It will be coded so it cannot be linked to you. Any name or identifying information you give will be kept secure via electronic encryption or locked inside an electronic safe or securely coded zip drive. When we or any of our investigators look at the data, none of the data will have your name or identifying information. We will only use a number-letter code to analyze the data. We will not identify you in any publication or report. Your information will be kept confidential at all times. The only exception to this is if we fear that you are at imminent risk of serious harm or harming another. All study documents will be destroyed 3 years after we conclude this study.

#### **Benefits:**

Information you provide will help bring awareness about the successful strategies or modifications currently in place as well as the needs of individuals with ADHD both in the postsecondary school setting and in the workplace. You may benefit through your participation in this project by learning about new strengths not previously noted. As the information about this study is shared with other researchers, school leaders, medical practitioners and the public at large, the new findings may contribute to positive changes that you may benefit from in the near future.

#### **Confidentiality:**

This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is if you tell us about abuse or neglect that makes us seriously concerned for your immediate health and safety or that of others. If the researcher feels that you are a threat to yourself or others they would be required to provide your name and contact information to 911, or a school counselor, a social worker in the community crisis center, or even a police officer if necessary.

#### **Right to Withdraw:**

Your participation is greatly appreciated, but we acknowledge that the questions we are asking are personal in nature. You are free at any point to choose not to engage with or stop the study. You may skip any questions you do not wish to answer. This study is not required and there is no penalty for not participating. If at any time you experience a negative emotion from answering the questions, we will stop asking you questions.

#### **Contact Information:**

You will receive a copy of this consent form. If you have questions you can talk to or write the principal investigator, Julie Robello at [redacted]. If you want to talk with a participant advocate other than the investigator, you can write or call the director of our institutional review board, Dr. OraLee Branch (email obranch@cu-portland.edu or call 503-493-6390).

#### Your Statement of Consent:

I have read the above information. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study.

Participant Name Date

Participant Signature Date

Investigator Name Date

Investigator Signature Date

Investigator: Julie Robello; email: [redacted] c/o: Professor Audrey E. Rabas Concordia University–Portland 2811 NE Holman Street Portland, Oregon 97211

#### Name Phone Number Date of Birth Age Marital Status □ Single Work Status □ Employed □ Married □ Part Time □ Divorced □ Full Time □ Widowed □ Unemployed High School $\Box$ Yes If yes, what is your current highest level of education? Graduate $\square$ No □ Technical School Associate □ Bachelor's □ Master's □ Doctorate Did you have an IEP while you Do you have a secondary disability? At what age were in school? were you $\Box$ Yes What is it? diagnosed $\Box$ Yes Until what grade? $\square$ No with ADHD? $\square$ No How were you initially diagnosed? □ School Team □ Private Doctor □ Government Program □ Other Type of documentation you are providing to officially document your ADHD diagnosis: $\Box$ 504 Plan $\Box$ IEP □ Psychoeducational Rpt. □ Medical Rpt. □ Other What classification did you qualify under (visual processing, auditory processing, etc.)? What was your parent's marital status shortly before, during or shortly thereafter your ADHD diagnosis? $\Box$ Divorced/Separated $\Box$ Never Married $\square$ Married What is your position within the family structure (i.e. oldest child)

# **Appendix B: Participant's Demographic Information**

#### **Appendix C: Interview Tool**

(The questions are not meant to be sequential. They are a guide for the investigator.)

- 1) How would you describe ADHD?
- 2) Contributions your ADHD has made in your life.
  - a. Academic success or academic difficulties
  - i. How would you describe your school years?
    - 1. Homework experiences
    - 2. Interventions or strategies and resources you found the most helpful.
    - 3. Peer relationships
    - 4. Family relations
  - ii. How would you describe your overall school experience?
  - iii. What was one of the most helpful strategies you utilized to stay focused or organized in school?
  - iv. What advice would you give to a student with ADHD who is struggling academically in school?
  - v. Describe your relationship with teachers and their impact.
  - vi. Who was the most positive and supportive person for you in school? Why? Can you describe an example of how they supported you?
  - vii. Was there a person who you felt was not supportive of you in school? Why? Can you describe an example of how they did not support you?
  - viii. If you could go back in time and give the "school-aged you" some advice, what period of your life would you revisit, and what would you say?
- 3) Describe your life experiences as an adult with ADHD
  - a. Family Life
  - b. Describe yourself & your needs to your college professors or potential employers.
  - c. Obstacles you face as a college student and / or working adult.
- 4) How did you get to where you are today?
  - a. What images about yourself do you see when you look in the mirror?
  - b. Describe your future?
- 5) Is there anything else you would like to share with me that I did not ask you?

Appendix D: Research Interview	w Notes Template
--------------------------------	------------------

Participant Interview Number	
Interview Date	
Participant's Code Name	
Language of Interview	<ul> <li>English</li> <li>Spanish</li> </ul>
Written Prompts Typed	□ Yes □ No
Other persons present during the interview	□ Yes □ No

#### **Appendix E: Research Questions**

RQ1: What barriers or successful strategies do individuals with ADHD encounter as they make their way through the educational system and into the workplace?

SQ1: How do individuals' ages 18 to 40 diagnosed with ADHD perceive their academic success or failure?

SQ2: Based on the experiences of individuals ages 18 to 40 diagnosed with ADHD, how is or was parental support a factor in their academic success or failure?

SQ3: Based on the experiences of individuals ages 18 to 40 diagnosed with ADHD, how is or was teacher support a factor in their academic success or failure?

#### **Appendix F: Advertising Flyer**

# Help the ADHD Community Research Participants Needed

## \* \* \*

\* \* \*

This is an invitation for adults ages 18 to 40 with Attention Deficit Hyperactivity Disorder (ADHD) to participate in a research study. Participants will be required to participate in an interview, and must be able to provide written proof of their ADHD diagnosis. They may provide any of the following documents: a copy of their Individualized Educational Program (IEP); Psychoeducational Evaluation report; their doctor's Medical Report or Prescription which clearly states a diagnosis of ADHD. Participants who successfully complete the study will receive a **\$20** gift card.

Esta es una invitación a adultos de 18 a 40 años con Trastorno por Déficit de Atención con Hiperactividad (ADHD) a participar en un estudio de investigación. Los participantes deben participar en una entrevista, y deben comprobar por escrito que han sido diagnosticados con ADHD. Como comprobante pueden traer una copia de su Programa Académico Individualizado (IEP): su reporte psicopedagógico, un reporte médico o prescripción que claramente indiquen una diagnosis de ADHD. Aquellos participantes que cumplan con todos los requisitos del estudio recibirán un tarjeta de regalo de \$20.

If Interested Please E-Mail Julie for details

Personas Interesadas Favor de Comunicarse con Julie via correo electronico

# **Appendix G: Institution Request Letter**

Date: \_\_\_\_\_

Dear \_\_\_\_\_ Institution's Name Department Name Institution's Address Institution's Phone Number



RE: Permission to advertise a Doctoral Dissertation ADHD Research Study at your campus

Dear \_\_\_\_\_:

I am writing to request permission to post flyers advertising my research study about the life experiences of adults with documented ADD/ADHD, ages 18 to 40, at your institution. I am currently enrolled in the Doctorate in Education program at Concordia University Portland, OR, and am in the process of writing my Doctoral Dissertation. The study is entitled " Through their Eyes: School and Work Experiences of Adults 18 to 40 with ADHD."

I hope that the school administration will allow me to recruit students at your site to participate in an informational meeting, a one-on-one interview, and review and edit of the interview transcript. Interested students who volunteer to participate will be given a \$20 gift card. They call next will be provided with a consent form (copy enclosed) that will need to be completed at the beginning of the one-on-one interview process.

If approval is granted, flyers will be posted in the areas designated by the institution and additional copies left at the Counseling and Student Success Office.

Interested students may call or email the researcher to receive information about the time and location of the informational meeting. The student information will remain confidential should this study be published. No costs will be incurred by either your school/center or the individual participants.

Your approval to advertise this study will be greatly appreciated. I will follow up with a telephone week and would be happy to answer any questions or concerns you may have at that time. You may contact me at my email address [redacted].

If you agree, kindly submit a signed letter of permission on your institution's letterhead acknowledging your consent and permission for me to promote this study at your institution.

Sincerely,

Julieta E. Robello Doctoral Student Concordia University Portland, OR

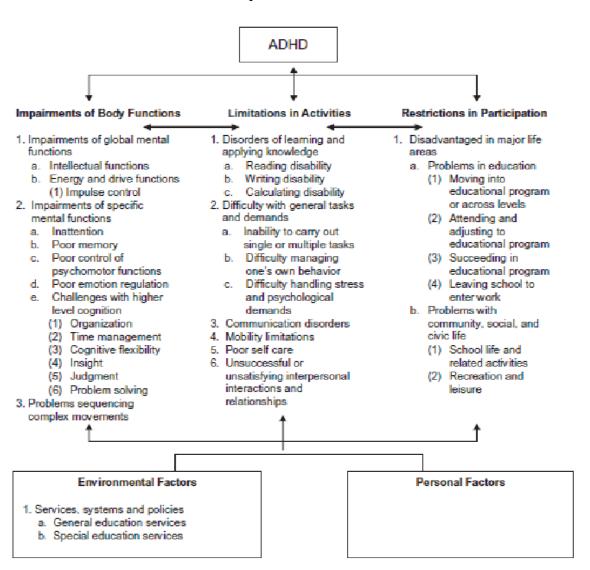
#### **Appendix H: Radio Announcements**

Message in English: Julie Robello, Doctoral student in the Educational Leadership Program at Concordia University, invites adults, ages 18 to 40, diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) to participate in a research study. There is no cost for participating, the only requirements are being between the ages of 18 to 40; being willing and able to provide documentation that verifies your ADHD diagnosis, and being available for an interview during which you will share your history, experiences, and ideas in reference to ADHD. Interested individuals please send an email [redacted] for more information.

Message in Spanish: Julieta Robello alumna de la Universidad Concordia del programa de Liderazgo Pedagógico extiende una invitación a personas de 18 a 40 años con Trastorno por Déficit de Atención con Hiperactividad (ADHD) para participar en un estudio de investigación. No hay costo alguno, los únicos requisitos para participar es que tengan entre 18 y 40 años de edad, que estén dispuestos y disponibles para compartir sus historias y experiencias y que puedan comprobar por escrito que han sido diagnosticados con ADHD. Interesados favor de comunicarse por correo electrónico [redactado] para más información.

# Appendix I: Functional Problems Associated with ADHD

International Classification of Functioning, Disability, and Health conceptual model (Loe & Feldman, 2007, p. 645).



Used with written permission from Dr. Feldman

# **Appendix J: Statement of Original Work**

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously-researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

# Statement of academic integrity

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

# **Explanations:**

# What does "fraudulent" mean?

"Fraudulent" work is any material submitted for evaluation that is falsely or improperly presented as one's own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate's final work without full and complete documentation.

# What is "unauthorized" assistance?

"Unauthorized assistance" refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another's work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

# **Statement of Original Work (continued)**

I attest that:

- 1. I have read, understood, and complied with all aspects of the Concordia University–Portland Academic Integrity Policy during the development and writing of this dissertation.
- 2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*.

Julieta E. Robello
Digital Signature
Julieta E. Robello
Name (Typed)
February 8, 2019
Date