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Attention Deficit Hyperactivity Disorder: Lived Experiences of Adults Diagnosed With ADHD

Carole Larson Yokell

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Attention Deficit Hyperactivity Disorder:
Lived Experiences of Adults Diagnosed With ADHD

by
Carole Yokell

An Applied Dissertation Submitted to the
Abraham S. Fischler College of Education
and School of Criminal Justice in Partial
Fulfillment of the Requirements for the
Degree of Doctor of Education

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Approval Page

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Statement of Original Work

I declare the following:

I have read the Code of Student and Academic Responsibility as described in the *Student Handbook* of Nova Southeastern University. This applied dissertation represents my original work, except where I have acknowledged the ideas, words, or material of other authors.

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Carole Yokell

Name

February 17, 2023

Date

Acknowledgments

This dissertation is dedicated to my dearly departed father, Fred Seewer. You were my rock growing up and instilled the drive to work hard for what I wanted out of life, even if I took the long road to success. I know you are celebrating with me from Heaven.

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Abstract

Attention Deficit Hyperactivity Disorder: Lived Experiences of Adults Diagnosed With ADHD. Carole Yokell, 2023: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education and School of Criminal Justice. Keywords: attention deficit hyperactivity disorder, ADHD, adult ADHD

The problem addressed in the research was that many individuals were not diagnosed with attention deficit hyperactivity disorder (ADHD) until they were adults. The purpose of the study was to examine the experiences and beliefs of participants regarding the management of ADHD and the impact that experiences may or may not have regarding the quality of life during adulthood.

This study utilized a phenomenological qualitative approach to collect data from adults diagnosed with ADHD about their life experiences. Data were gathered with virtual conference interviews and phone calls using an interview protocol that the researcher developed. Qualitative methods were utilized to analyze the data to answer the research questions.

Research Question 1 asked about differences in the quality of life between those diagnosed with ADHD in childhood and those diagnosed with ADHD in adulthood. Adults diagnosed with ADHD in childhood struggled with procrastination, disorganization, and forgetfulness in schools. Adults diagnosed with ADHD in adulthood experienced distractibility problems when performing monotonous tasks. Research Question 2 asked about the type of childhood experiences that affected the outcomes of how adults treated ADHD. Findings showed adolescents with ADHD who were best friends in childhood sought adults with ADHD for friendships when they became adults. Parents who worked all the time contributed to responders with ADHD being lonely and introverts as adults. Research Question 3 inquired about how childhood experiences, stemming from ADHD, affected life choices in adults. Results indicated supportive mothers of responders with ADHD helped the responders achieve positive life choices. Research Question 4 inquired concerning factors that determined how adults managed ADHD. Results conveyed early diagnosis of ADHD and conversations with others who experienced ADHD helped with the management of ADHD. Books may be read on the topic and Internet searches conducted to locate symptoms and treatments.

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Chapter 1: Introduction

One of the most common childhood neurological disorders in the United States is attention deficit hyperactivity disorder (ADHD) (Centers for Disease Control and Prevention [CDC], 2019). The diagnosis of ADHD was given to 9.4% of children between the ages of and 2 and 17 in the United States (CDC, 2019). Half of these individuals experienced symptoms from ADHD into adulthood. Many adults who experienced symptoms of ADHD progressed through their childhood, adolescence, and young adulthood without being accurately diagnosed (CHADD.org, 2017).

The rate of ADHD in adults was rising substantially; 17%–22% of adults sought treatment for comorbidities with an outcome of being diagnosed with ADHD (Prakash, et al., 2021). More recent studies showed an increased range of 50% to 85% of childhood cases of ADHD carrying over into adulthood (Roselló et al., 2020). Some of these studies relied on participants' self-reporting and included only medically diagnosed cases of ADHD, therefore, presenting limitations. Another limitation was that as those who have been diagnosed with ADHD as a child get older, their symptoms may present themselves differently than when they were a child. Adult ADHD usually was characterized by the inattentive symptoms with fewer incidences of hyperactivity (Vitola et al., 2017). For example, hyperactive behavior may decrease as the individual gets older, but the inattentive trait remains.

It was common for individuals to go through life without receiving a formal diagnosis of ADHD, causing several personal, social, and professional challenges; this was especially true for females (Lynch & Davison, 2022). A vast majority of the literature showed that there were more cases of males being diagnosed with ADHD

because the symptoms were more prevalent in boys; therefore, males received more attention that generated a visit to the doctor for screening (Slobodin & Davidovitch, 2019).

In addition, symptoms presented could lead to being misdiagnosed with another disorder (Mowlem et al., 2019). Because it was common for individuals with ADHD to have comorbidities such as anxiety disorder, depressive disorders, and bipolar disorder, the ADHD symptoms may often be mistaken for their comorbidities (Brunkhorst-Kanaan, 2020). Therefore, many adults progressed through life with undiagnosed ADHD (Young & Goodman, 2016). Living with untreated ADHD led to daily challenges for these individuals. Misinformation and social stigmas that were attached to a diagnosis of ADHD could prevent individuals who may be experiencing symptoms to seek a diagnosis which may explain the lack of data in the literature regarding treatment protocols for adult ADHD (Bisset et al., 2022).

Statement of the Problem

The problem to be addressed in the research study was that many individuals were not diagnosed with ADHD until they were adults (Jones, 2022). Whether an individual goes through childhood with undiagnosed or diagnosed ADHD, there were many factors that impacted the outcome of how their childhood experiences affect them as adults. Although trauma, abuse, and dysfunctional family life may make a tremendous impact on individuals in adulthood, ADHD may affect how an individual deals with the adversities they may encounter in daily living and major life events. In some cases, children who may receive a formal diagnosis of ADHD were either treated inappropriately or not at all. As a result, these children may live dysfunctional lives as adults (Springstead, 2017). A

component of this may be self-medicating. Whether they learned compensating skills to overcome their impulsive behavior, used pharmacological prescribed medications, or self-medicate, this study sought to understand what individuals did to cope with the most dysfunctional symptoms of this frequently diagnosed malady. Not completely understanding the factors that may be involved in how an individual endures their symptoms of ADHD prevented one from receiving proper treatment for this disorder.

Background and Justification

Although many individuals were diagnosed with ADHD as children and may have access to treatments such as medication and counseling to address the symptoms of ADHD, there was a population of individuals who experience symptoms of ADHD well into adulthood and may or may not have been diagnosed (Fleischmann & Miller, 2013). Some of these individuals experienced hardships due to their undiagnosed ADHD, whereas others developed coping skills on their own and may develop into successful professionals despite their ADHD traits (Canela et al., 2017).

If not addressed appropriately, adult ADHD can manifest into problematic relationships, problems with law enforcement, poor professional performance, and many other debilitating issues associated with the symptoms (Michielsen et al., 2018). Although signs and symptoms of ADHD were present in early childhood, it may go undiagnosed, misdiagnosed, and/or untreated until adulthood. By this time, either the adult has developed skills to compensate for the disability or the person continues to have challenges with many aspects of life. In some cases, an individual may choose a spouse that possesses traits that were the opposite of ADHD characteristics such as being very grounded and organized (Prakash et al., 2021). Diagnosing ADHD in adults was a

challenge because many individuals' ADHD symptoms may be masked by other symptoms they may have from comorbidities. These conditions may be anxiety, bipolar, or depression (Geffen & Forster, 2018).

Deficiencies in the Evidence

Although there were ample data regarding ADHD in children and adolescents such as research conducted by the Centers for Disease Control (CDC) and National Institute of Health (NIH), there seemed to be a deficiency regarding ADHD in adults (Instanes et al., 2018). Specifically, studies investigating experiences and beliefs of adults with ADHD who were not diagnosed until adulthood were scarce (Chan et al., 2016). The study aimed to address this deficiency.

Audience

The audience for this study were of interest to a range of people including teachers, parents, and adults diagnosed with ADHD. Also included in the audience for this study were families of children and adolescents with ADHD as this information can be helpful in early diagnosis and proper treatment of the condition. The anticipated participants of the study lived in the United States.

Purpose of the Study

The purpose of the study was to understand the lived experiences of individuals diagnosed with ADHD during adulthood, as well as in childhood. A comprehensive understanding regarding these experiences may reveal information that may affect their lives. This included adults who had been diagnosed as children but had not been treated for this disorder until adulthood. By understanding these experiences, insight on how symptoms of ADHD, such as hyperactivity, impulsivity, and distractibility, had affected

some individuals negatively while others had been able to deal with challenges successfully (Watters et al., 2018). The intention of this study was to analyze experiences and distinguish factors contributing to better success in managing life as an adult.

Setting of the Study

The setting invited adult members of Chapters of Adults with Attention-Deficit/Hyperactivity Disorder (CHADD), Facebook users, and LinkedIn subscribers to participate in the study. LinkedIn is a professional network where adult individuals connect for the purpose of sharing resources and accessing information regarding career opportunities (Adikari & Dutta, 2020). The targeted participants were in the age range of 18 to 65 years old, have a diagnosis of ADHD, and resided across the United States. The researcher conducted virtual conferencing interviews and phone calls for this study.

Researcher's Role

The researcher was a former teacher for students with special needs who was now a self-employed educational consultant. The researcher worked with children, adolescents, and adults diagnosed with ADHD and had seen her students both excel and struggle with academics and social interactions because of this disability. Her role in the study was to identify potential participants for the study, gather and analyze research data, and report the findings in written form. It was the hope of the researcher that the data collected from this study provided useful information for all stakeholders involved with diagnosis, treatment, and support for those with ADHD including those who have ADHD.

Definitions of Terms

Academic performance

For purposes of this study, this refers to the levels of academic achievement (Hellas et al., 2018).

Addiction

Behavior which results in unhealthy dependency, yearning, and uncontrollable behavior regardless of the affected individual's adverse consequences (Maremmani et al., 2018).

Attention-deficit/hyperactivity disorder (ADHD)

Patterns of hyperactivity and inattention that are persistent. The functioning and development of the brain are affected by this disorder (American Psychiatric Association, 2013).

Belief

A state of mind in which confidence or trust is established and instilled in an abstract or concrete object or a person regardless of the state of existence (Merriam-Webster, n.d.).

Comorbid condition

Conditions that simultaneously occur alongside another illness. Comorbid refers to a disease or condition that occurs simultaneously with another (Sutinen et al., 2022).

Complementary and alternative medicine (CAM)

Nonconventional, therapeutic techniques that may or may not be used alongside conventional medicine (Mitchell & Cormack, 2019).

Dopamine

An organic chemical in the brain that is responsible for sending messages that regulate focus, memory, and mood (Cheyette & Cheyette, 2018).

Executive functioning skills

A group of functions that include self-regulation, deferred gratification, and intentional action (Doebel, 2020). This also may include self-organization/critical thinking skills (Finders et al., 2021).

Fight-or-flight response

A physiological response in which the heart rate and glucose levels increase due to stress. Adrenaline levels increase, which may cause an individual to flee or become aggressive in a situation when they may be threatened (Bayarassou et al., 2020).

Mixed method research

Research using data from both qualitative and quantitative research (Creswell & Creswell, 2017).

Qualitative research

The collection of words and pictures to be analyzed to explore a human problem (Creswell & Creswell, 2017).

Quantitative research

Research conducted by collecting numerical data that has the possibility to be measured in a statistical method (Creswell & Creswell, 2017).

Chapter 2: Literature Review

When treating symptoms of ADHD, social stigma can play a substantial part in not only the attitudes and beliefs, but also the actions taken by those of all ages who were diagnosed with ADHD (Lebowitz, 2016). School age children who were prescribed medication for ADHD must leave the classroom at a designated time of day, every day for their medication to be administered to them by the school nurse (A. Rubin, personal communication, September 1, 2020). Being singled out by having to leave the regular classroom for maintenance medication may cause low self-esteem in children and be carried into adulthood (Kita, 2017). There is a substantial correlation between academic difficulties and ADHD; many individuals with ADHD have a higher occurrence of grade retention which may attribute to low self-esteem (Jangmo, 2022). These self-esteem issues may be carried over into adulthood.

Young adults who have been diagnosed with ADHD may have different adverse experiences than those they may have had when they were younger. In college, medication abuse is commonplace as there is pressure to meet academic deadlines and the desire to increase overall alertness. Depending on whether the student is away from home living in a college dormitory or at home under the supervision of their parents, the pressure of not having parental emotional support and regulation may be a contributing factor to stress (Cropsey et al., 2017).

The Bowen Family Systems Theory (Keller & Noone, 2019) is based on the dynamics of the family regarding the personal development of the child diagnosed with ADHD. According to Bowen, individuals were understood by others more completely when in the setting of a community or a family. Community and family give validity to

individuals as it allows them to be a part of an accepted structure.

Another theory impacting the attitudes and beliefs of the treatment of ADHD is Barkley's (2014) ADHD theory, which suggests that this neurological disorder is the lack of an individual's ability to self-regulate. This assumption also plays a part in which route an individual chooses to treat the disorder of ADHD (Goh et al., 2020).

The many controversial views about using medication had prompted parents and caregivers to either not treat the disorder or to seek out other alternatives (Tatlow-Golden et al., 2016). Researchers have noted that although parents reported better success with medication, they also had incorrect information regarding its use (Pham et al., 2017). According to information reported by teachers and parents, this population knows more about the characteristics of ADHD than about the treatment options and successes (Mohr-Jensen et al., 2019). Other parents and caregivers report that they were less willing to support self-regulation methods such as behavior training than using alternatives (Bussing et al., 2016). Another issue in treating ADHD is that, unlike the younger population, many adolescents do not follow the proper protocol for the prescribed medication (Storebø et al., 2018). To avoid some negative side effects of pharmaceutical medication, complementary and alternative treatments for ADHD have been used to treat ADHD and many report them to be effective (Johnson & Yang, 2020). Parents will sometimes give their children a break from the medication such as on weekends and holidays (Ibrahim & Donyai, 2015). According to Emilsson et al. (2017), untreated ADHD can lead to adverse effects such as low academic achievement, low self-esteem, and even behavior problems; the most favorable outcome for treatment of ADHD is behavior support and some level of medical intervention.

Individuals of all ages diagnosed with ADHD are more susceptible to experiencing a reduced quality of life due to experiences and adverse mental, social, and physical effects of ADHD. A study conducted by Krauss and Schellenberg (2022), revealed that it is imperative that more focus needs to be placed on encouraging approaches to increasing the quality of life in adolescents and young adults. During these years, the individual may be vulnerable due to anxiety, stress, and depression as they get older. ADHD can negatively affect the quality of life for all ages, however most research has been performed in children and adolescents (Sjöwall & Thorell, 2019). Because lifestyle trends are changing in adolescents and young adults, the outcome of the quality of life in adults may vary warranting ongoing research (Lovett & Harrison, 2021).

COVID-19 and ADHD

Recent studies have shown that depression, anxiety, and stress are becoming more prevalent amongst adolescents and young adults (Goodwin et al., 2020; Keyes et al., 2019 as cited in Lovett & Harrison, 2021). Because of this upward rise in symptoms, the effects from the COVID-19 pandemic have worsened these mental health issues. Mental health services that were normally held face-to-face were done by phone, video conferencing, or not at all. With brick-and-mortar school and workplace closures, the routine that is imperative for individuals with ADHD to thrive was interrupted. Attending school and work remotely did not provide the social interaction that all individuals rely upon for real time feedback. The lack of exercise and outdoor time for all ages due to the shutdown of public areas during the COVID-19 pandemic played a part in the detriment of health and wellbeing not just for those with ADHD, but for the typical population as well. In addition, there was the instability of income and the fear of contracting COVID-

19. All these factors played a significant part in contributing to the need to modify mental health guidelines to improve the accommodations for patients with mental health needs (McGrath, 2020).

Historical Background of ADHD

Sir Alexander Crichton cited the first example of ADHD in 1798. In Chapter 2 of his book, “On Attention and its Diseases,” Crichton (1798/2011) discussed the realms of healthy attention and its definition and described ADHD as a disorder that presents difficulty maintaining attention, performing tasks, or engaging in play activities. Crichton also stated that the symptoms must be present in an individual before they reach the age of 7 years old before a true diagnosis can be made. These symptoms must also be present in more than one setting.

In 1798 Alexander Crichton published a book addressing what we now know as ADHD; he referred to it as mental restlessness and his focus was on lack of attention in children (de Vinuesa Fernández, 2017). The first case of documented treatment for the disorder was done by Charles Bradley in 1937. In this specific case, he used a stimulant called Benzedrine to treat the disorder. Although Bradley’s original intention for this medication was to treat headaches in children, Benzedrine proved to help academic performance and behavior in the children treated with this drug (Mannem et al., 2021). Before the deinstitutionalization movement, some children with ADHD were sent to live in institutions; the care in these institutions was not conducive to treating the problem. Instead, the individual was excluded from the mainstream population (E. Taylor, 2011).

It was not until 1968 that the American Psychiatric Association recognized what is now referred to as ADHD in their *Diagnostic and Statistical Manual of Mental*

Disorders (DSM, 2nd ed.) as hyperkinetic reaction of childhood. As the *DSM* was updated, so was the terminology; the *DSM-III* listed the condition as attention deficit disorder (ADD) in 1980. The term was changed to ADHD in the *DSM-III-R* (1987). The *DSM-IV-TR* (2000) still used the term ADHD. However, three subcategories of the disorder (i.e., hyperactive, inattentive, and combination) were added to the *DSM-IV* (Wolraich et al., 2019). Although in the latest edition, the *DSM-V* continues to recognize the three subcategories, it gives attention to ADHD in adolescents and adulthood that makes it easier to identify at these stages (Epstein & Loren, 2013).

Diagnosing cases of ADHD in adults increased due to the publication of the *DSM-5* in 2013. The updated information increased the age of reported onset of ADHD in children from age 7 to age 12 (Young & Goodman, 2016). Before this update, diagnosing adults with ADHD was difficult because the *DSM-4* required that symptoms of ADHD must have been present before age 7 of the adult being diagnosed (Faraone et al., 2006). Diagnosing ADHD in adults requires collecting information from the individual to be diagnosed regarding childhood experience to determine the onset of symptoms (Lin et al., 2015).

ADHD is not only an American founded disorder, but it is also actually a global issue as well. The global rate of ADHD worldwide is 5.9% (Smith, 2017). Evidence did not present itself regarding ADHD being a global issue until into the 1990s (Conrad et al., 2018). Until this time, ADHD was viewed as an American affliction. Varying cultural and social norms may play a part in the difference in ADHD diagnosis rates in countries outside of the United State (Asherson et al., 2012).

Causes of ADHD

ADHD has affected many individuals who are subject to risk factors such as prenatal factors; people of mothers who used tobacco and alcohol while pregnant are at risk. There is also a substantial genetic component of the diagnosis of ADHD, so family history is considered when being diagnosed (CDC, 2019).

Genetic Factors

Although research reveals that there is a genetic factor involved in ADHD, genes do not outweigh the other factors contributing to ADHD in individuals (Barkley, 2017). This means that other factors may be equal contributors to this condition.

Environmental Factors

According to the National Institute of Mental Health (2020), environmental factors, including low exposure to toxins, such as chemicals, at an early age and in utero may contribute to symptoms of ADHD. In addition, the mother smoking, using drugs, and alcohol while pregnant may also contribute to an individual having ADHD (National Institute of Mental Health, 2020). Brain damage is another factor that may cause symptoms of ADHD (Fluegge, 2020). The symptoms that are experienced after a traumatic brain injury occurs meet the criteria of symptoms of ADHD. Symptoms experienced by the individual may include forgetfulness, disorganization, and impulsivity. This is what qualifies traumatic brain injury as a risk factor for developing ADHD. The final consensus regarding “nature versus nurture” regarding ADHD is that although more factors may lean on the side of genetics, environmental aspects play a part of symptoms developed (Ghirardi et al., 2019).

Symptoms of ADHD

Symptoms of ADHD appear before the age of 12 and may present themselves as early as age 3 (Riglin et al., 2022). There are three types of ADHD classified in the *DSM-5* including inattentive, hyperactive-impulsive, and combined..

Inattentive Type

The symptoms of inattention must be evident in the individual for at least 6 consecutive months to meet this criterion for diagnosis. According to the *DSM-5*, the inattention must also be inappropriate for the age and developmental level of the subject.

Examples of inattention are as follows:

- failure to pay attention to details which may cause mistakes in daily living tasks, professional life, and schoolwork
- difficulty maintaining focus in daily functioning
- poor listening skills
- lack of follow-through in schoolwork, projects, and/or chores
- poor organizational skills
- avoidance of tasks that require focus
- forgetfulness
- difficulty concentrating and distractibility

Hyperactive-Impulsive Type

Individuals exhibiting this type of ADHD have difficulty taking turns, speaking out of turn, and interrupting others, and have difficulty staying seated. They also have the propensity to speak or act before consequences are considered.

Combined Type

This classification of ADHD is a pattern of not only hyperactivity, but inattentiveness as well. (American Psychiatric Association, 2013).

ADHD in Children

An average of one in seven children in the United States is diagnosed with ADHD (Schwartz, 2016). Although resources are available for parents and caregivers regarding various treatments such as pharmaceuticals, homeopathic remedies, and dietary modifications, many parents and caregivers either do not have access to this information in its entirety or have difficulty understanding which route to take when treating their child for ADHD (Fridman et al., 2017).

Many children go untreated or are overmedicated because parents and caregivers may not have the correct resources to make informed decisions (Fulton, 2015). The topic of treating ADHD in children has become very controversial (“The Great ADHD Controversy,” 2014). Parents and caregivers want and need substantial support such as support groups and nonobjective resources (Leitch et al., 2019). In addition, once children get older and do not have the guidance and support regarding managing their ADHD, the disorder sometimes goes untreated (Chan et al., 2016).

In many cases, the classroom teacher may be the first to recognize behaviors of ADHD in their students, playing a key role in the intervention process (Aheran, 2022). Parents may not recognize these symptoms as they have no other children with whom to compare. Children with ADHD often have challenges in school with academics and behavior. In some cases, children with ADHD will avoid classwork because they may have difficulty focusing and staying on task (Owens, 2020). Task avoidance may include

crying, leaving their designated area, leaving the classroom, becoming disruptive, or shutting down. It is crucial for early intervention to take place for individuals with ADHD to obtain assistance for academic and social success (Hare et al., 2021).

Autistic Spectrum Disorder (ASD)-Attention Deficit Hyperactivity Disorder (ADHD) Comorbidity. ADHD is a comorbidity in approximately 30-50% of children diagnosed with ASD (Davis & Collin, 2012 as cited in Rad et al, 2019). Parents of individuals who have a diagnosis of both ASD and ADHD have reported that the severity of the ADHD symptoms are more severe than reports from parents of individuals with a diagnosis of only ADHD. Of the most prominent ADHD symptoms, inattentiveness was reported by the parents of the children with ASD and ADHD (Zablotsky et al., 2020). When individuals have the dual diagnosis of ADHD-ASD, there is a higher chance of them having more severe emotional and behavior problems in comparison to individuals not experiencing this comorbidity combination (Thomas et al., 2018).

ADHD in Adults

Barbaresi et al., (2013) discovered that symptoms from ADHD will persist into adulthood for approximately one-third of this population. For those who do not get diagnosed until they are an adult, struggles with executive functioning skills are evident (Dorr & Armstrong, 2019). Because of the criteria changes in *DSM-5* in 2013, there has been an escalated amount of reported cases of adult ADHD. One of the most significant changes in the *DSM-5* that led to a higher rate of diagnosis in adults is the age of the onset of symptoms. Previously, the *DSM-4* stated the age of onset to be 7, but the update called for the age to be increased from 7 to 12 years old (Leahy, 2018). In addition, the symptoms required for an ADHD diagnosis decreased from 6 to 5.

Adults are commonly untreated and undiagnosed. One of the reasons may be that adults have acquired coping strategies that may hide the significant signs of the disorder (Young, 2005 as cited in Leahy, 2018). Moreover, adults may get misdiagnosed or underdiagnosed because they may already have a diagnosis of another psychological condition that may have similar traits to ADHD (Gerhand & Saville, 2022). For example, someone with anxiety disorder may get misdiagnosed as having ADHD because of the impulsivity and hyperactivity one may experience with anxiety. It is common for adults with ADHD to have comorbidities such as impulse-control disorder, sleep disorders, anxiety disorders, mood disorders, and substance abuse disorders (Ginsberg et al., 2014; Kessler et al, 2006 as cited in Leahy, 2018). Other risk factors for adults with ADHD are asthma, migraine, and obesity (Ginsberg et al., 2014 as cited in Leahy, 2018).

Social Functioning

A higher rate of difficulties with relationships, self-organization, planning, and mood control has been reported by adults with ADHD (Nakai et al., 2022). Because individuals with ADHD experience impulsivity, disorganization, and emotional regulation, social interactions may not always result favorably. For example, miscommunications and inappropriate reactions to a spouse may result in a failed relationship (Wymbs et al., 2021).

Addictions

Individuals diagnosed with ADHD are at risk for addictions. These addictions may include gambling, overeating, video game addiction, alcoholism, drug addiction, and many other addictive behaviors that are detrimental to daily functioning, health, and personal and professional relationships (Fatséas et al., 2016). The comorbidity of

addiction is common in mental health disorders. A study involving individuals with ADHD revealed that they are 2 to 3 times more likely to develop a substance abuse disorder (Schellekens et al., 2020).

Prescription stimulant abuse. Prescription stimulant abuse is common amongst college students. They are easily accessible because they are used to treat ADHD. A study based on a sample size of 900 college students revealed that 9.8% of individuals who were college age used prescription stimulants with a prescription (Fairman et al., 2021). In this study, qualifications of participation did not require a diagnosis of ADHD. Therefore, there was no indication as to whether the participants were self-medicating or using prescription stimulants for recreational purposes. According to Ivanov et al., (2022), although stimulants are beneficial in treating ADHD, there is a sub-population of individuals diagnosed with ADHD who may be at risk for developing a substance abuse disorder. This is especially true for patients who have a predisposition for addiction due to family history.

Gambling addiction. Symptoms of pathological gamblers may be cognitive rigidity, imprecise response, impulsivity, deficit in reaction suppression, slower time evaluation, and disruption in inhibition process. According to Altable et al., (2022), pathological gamblers diagnosed with ADHD have more severe addictive behavior than those without ADHD. In addition, 26.3 % of gamblers had a diagnosis of ADHD.

Video game addiction. The use of technological devices being used by children younger than age one has become increasingly commonplace in the home. An expert committee which included the American Pediatric Association and Indian Academy of Pediatrics recommend that screen time for children 2 to 4 ½ years of age should be

limited to only 1 hour of supervised screen time per day. Children under 2 years old age should not have any screen time. It is also recommended that screen time should never replace sleep, family time, outdoor play, or peer interaction (Gupta et al., 2022).

Masi et al., (2021), report that 91% of children ages 2 to 12 years old play video games. During this period, children with ADHD have a propensity to become attracted to games that may lead them to become hyper focused. In addition, 2 – 5% of adolescents display characteristics of video game addiction. The *DSM-5* lists video game addiction as being comorbid with internet gaming disorder (APA, 2013).

Obesity/overeating. Several studies have revealed a link between ADHD and obesity (Cortese et al., 2016). It is possible that the inattention and impulsivity traits of ADHD may be attributed to poor eating patterns which results in excessive weight gain. Poor diet and binge eating due to factors that also fall under the category of ADHD characteristics such as impulsivity and poor executive functioning skills have been suggested to be the common thread to obesity and ADHD. However, researchers state that more research is suggested to reveal more in-depth factors that attribute the risk factor of obesity for individuals with ADHD (Hanc, 2018).

Diagnosis

The diagnoses are predicated on the *DSM-5* assessment criteria. With the *DSM-5* being the basis of diagnosis criteria, rating scales are provided so that parents, caregivers, and educators can evaluate the visible symptoms. The rating scale contains 18 symptoms and the extent of impairment because of the prevailing symptoms (American Psychiatric Association, 2013). These rating scales are especially important to clinical practice as they assist in determining the start, progression, and the impairment that arises from

various symptoms (Sibley et al., 2017). However, the problem of diagnosing ADHD persists as caregivers are ill-prepared when it comes to distinguishing between other conditions that exhibit similar characteristics and ADHD (Bélanger et al., 2018).

Traditionally, interviews and rating scales were being used to diagnose ADHD, however, the U.S. Food and Drug Administration (FDA) has approved a neuropsychiatric electroencephalograph (EEG) test named the Neuropsychiatric EEG-Based Assessment Aid (NEBA) to assist with diagnosing ADHD in patients between the ages of 6 to 17 years old (Lenartowicz & Loo, 2014). The EEG measures and records brain waves, which helps identify specific neurological disorders, but is not always accurate (Gloss et al., 2016). The test proved to be accurate 88% of the time but did not compare to an actual clinical exam which was documented to be accurate in 94% of trials (Karceski, 2016). The first practitioner to implement the use of an EEG in a study on humans was Dr. Herbert Jasper, a neuroscientist who pioneered the use of the EEG in diagnosing disorders of the brain, especially epilepsy (Avoli, 2010).

Controversy in Treatment

The concern regarding the treatment of ADHD is global (Smith, 2017). As a result, many individuals and organizations promote alternative methods to treating ADHD in lieu of and in addition to medication. This trend has become a huge market that targets those who have a stake in helping those with this disorder (C. Wang et al., 2020). Some studies suggest that alternative methods are successful in treating symptoms of ADHD (C. Wang et al., 2020). Moreover, many individuals continue having symptoms of ADHD well into adulthood (Chan et al., 2016).

According to a survey sponsored by the CDC (2016), approximately 23% of

children diagnosed with ADHD in the United States were not treated pharmacologically for the conditions associated with this disorder. In addition, they receive no additional support such as behavior management and dietary adjustments. Controversy over using this method without exploring other methods has sparked concern amongst parents, educators, and caregivers. Adverse effects have been associated with treating ADHD with medication (Rohatgi et al., 2015). As a result, concern over adverse effects of pharmaceuticals has triggered a trend in using alternative methods such as dietary supplements containing herbs and essential oils, nutrition plans, and specialized behavior support (C. Wang et al., 2020). In addition, children with ADHD who receive no treatment experience low academic achievement and, sometimes, behavior problems (Arnold et al., 2020).

There are two types of treatment strategies for ADHD, pharmacologic and nonpharmacologic therapies. Some examples of pharmacologic therapies include alpha-2 agonists, stimulants, antidepressants, and selective norepinephrine reuptake inhibitors (Lecky et al., 2019). Regarding some of the nonpharmacologic therapies, the treatment regimens include behavioral interventions, psychosocial interventions, learning training, cognitive training therapies, parent behavior training, and biofeedback and neurofeedback (Owens et al., 2018). Other nonpharmacologic treatments involve dietary supplements, vision training, elimination diets, and chiropractic treatment (Rucklidge et al., 2018). Behavioral therapy is recommended for children between the ages of 4 to 5 years. For individuals between the ages of 6 to 18, both FDA-approved medications and behavioral therapy are advised (Sibley et al., 2020).

Adverse Effects of Pharmaceutical Treatment

Several unfavorable effects arise from the use of pharmacologic treatment; namely, decrease in weight, changes in appetite, suppression of growth, elevated blood pressure, cardiac arrhythmias, sleep disturbance (Gazer-Snitovsky et al., 2019). It is important to acknowledge that suicide ideation can be caused by medications or can be an underlying ADHD health outcome (Storebø et al., 2018). Treatment can cause personality changes that end up robbing the individual's vigor and meaning of life.

Overtreatment due to misdiagnosis is another issue of concern as a disadvantageous effect of ADHD treatment. Individuals with minimal monitoring may be victims of overtreatment or undertreatment. Overtreatment is a pointless endeavor as there are usually no potential benefits, while the health of the individual may be further threatened (Sieluk et al., 2017). Because most of the pharmacological treatment options and drugs are stringently controlled, overtreatment may result in drug dependence and abuse. Pharmacological treatment is usually expensive and ends up costing families more than they can afford (Yule et al., 2019). This situation exacerbates the stress levels of parents and care givers. Currently, the most prescribed medicine to treat ADHD is Adderall (CDC, 2019), which has a reputation for being abused by teenagers and adults. The first FDA-approved medication to treat ADHD symptoms was Benzedrine and it was prescribed by Dr. Charles Bradley in 1937 (CDC, 2019). Benzedrine is no longer available in the United States; there was rampant abuse of this drug (Mannem et al., 2021). Ritalin has also been prescribed to treat the symptoms of ADHD (Colzato & Arntz, 2017).

Stimulant Medications and Stimulant Therapy

This type of treatment is the most popularly used method in treating ADHD (Stolberg, 2017). As a treatment option, stimulants are highly effective in managing the symptoms of ADHD. Some of these symptoms include hyperactivity, impulsive behavior, and limited attention span. Stimulant therapy can be effective when used by itself or it can be combined with behavioral therapy. Stimulants are a highly effective way to improve symptoms over a short span of time. Studies show that 70% to 80% of individuals suffering from ADHD (both children and adults) show improvements in their symptoms as soon as they start the treatment (Buker et al., 2020). Improvements in symptoms can be indicated by reduced fidgeting and interrupting.

As the patient continues to use stimulant medications, both their behavior and symptoms improve gradually. Although these types of drugs are not considered habit-forming, abuse of the medication is a strong possibility. People with a history of drug problems are more likely to abuse stimulants (Rajeh et al., 2017).

Examples of Stimulants Used to Treat ADHD

There are several variations of stimulants used to treat ADHD based on the nature of their functions, including short-acting, which has a more immediate effect: intermediate-acting, and long-acting. Some of the common stimulants for treating ADHD in the market are shown in Table 1.

Table 1*Common Stimulants for Treating ADHD*

Short-acting	Intermediate-acting	Long acting
Dexedrine	Adderall	Adderall XR
Focalin	Dexedrine Spansule	Concerta
Ritalin	Focalin XR	Daytrana
	Metadate ER	Metadate CD
	Methylin ER	Ritalin LA
	Ritalin SR	Vyvanse

The usual dosage of long-acting drugs is once daily, while for short-acting drugs it is twice or thrice daily. Some newer forms of drugs in this respect, such as Concerta, Ritalin, and Adderall XR can both relieve symptoms and decrease the side effects.

The following are people not eligible to take stimulant drugs:

- patients exhibiting an allergic reaction to the stimulant medication
- individuals with glaucoma
- patients exhibiting severe agitation, nervousness, tension, or anxiety
- patients under prior treatment regimens
- individuals who have a history with Tourette's syndrome.
- people with a history of psychosis
- people with overactive thyroids
- individuals suffering from coronary diseases
- people with a negative history of overconsumption of alcohol

Most stimulant medications are filled every month and often require frequent reevaluations. There are several instruments used to monitor the treatment response over time. Examples of monitoring instruments in the market include the Swanson, Nolan, and Pelham Scale Version IV (SNAP-IV), the Conners scales, and the Vanderbilt scales. Monitoring also involves the activity of evaluating the adverse effects of medications. The variations in monitoring are based on several factors including the specific treatment, child's age, treatment duration, comorbid conditions, previous symptoms (Hoseini et al., 2014), and the primary care provider (e.g., parents).

Nonstimulant Medication Used to Treat ADHD

In 2002, Atomoxetine was approved to treat ADHD in children, adolescents, and adults. This medication is marketed under the brand name, Strattera. Currently, this is the first nonstimulant medication on the market formulated specifically for ADHD (Agarwal et al., 2012).

Complementary and Alternative Medicine (CAM)

There are a variety of CAM methods that are commonly used to treat ADHD. According to the results from National Health Interview Surveys conducted in 2012 and 2017, meditation was the most frequently used CAM to treat ADHD in children (C. Wang et al., 2020). This study revealed that the most used CAMs associated with the mind-body modalities were mediation, yoga, and deep breathing. CAM usage increased from 2012 to 2017. These studies also revealed that children with ADHD experience comorbidities of the psychiatric nature at a rate of 91.9%. In addition, these children are more likely to take an alternative approach to treating symptoms of ADHD than those without comorbidities.

Another CAM that has proved to be effective is exposing individuals with ADHD to open green spaces such as parks, cemeteries, and other spaces with land that contains trees, grass, bushes, and other types of vegetation (Thygesen et al., 2020).

Dietary treatment and nutritional supplements. Eliminating sugar, preservatives, and food colors have been reported to make a small, but not substantial, difference in treating the symptoms of ADHD (Abd El Baaki et al., 2021).

Interactive metronome training. As an instrument, a metronome marks the time with a clicking sound. Musicians widely use it to keep up with the beat. The same principle helps treat people with ADHD as it teaches them to follow a rhythm. It helps with problems arising from timing and attention in ADHD individuals (Kemper et al., 2018).

Sensory integration training. Individuals with disabilities including ADHD may have trouble regulating their reactions to daily stimuli. For example, they may get overstimulated in a busy classroom or a crowded mall. The brain is usually a cornucopia of sensory feedback and reacting to multiple stimuli can be problematic for people with ADHD. Sensory integration training involves “teaching” the brain to better manage these sensory inputs, enabling people with ADHD to have more control over their reactions (Camarata et al., 2020).

EEG biofeedback. Doctors and physicians widely use the EEG machine to study the brainwaves of individuals with ADHD. Through the pictures provided by the EEG, sectors of the brain that may be unresponsive to stimuli can be identified. People with ADHD are usually taught how to ignite brain activities in the “dark” sectors. When this kind of training is done correctly, different aspects of ADHD in the patient (e.g.,

attentiveness) may begin to improve. However, the disadvantage of this type of treatment is that it is costly to parents and caregivers (Arms et al., 2020).

Chiropractic. This is considered an alternative method of medicine where the spine is manipulated in order to relieve pain in joints and muscles as well as increasing blood flow to the brain and other areas of the body. The idea is that adjusting the spinal cord will improve the overall health of people with ADHD. Although there is little evidence to support this idea, there are many people who stand by this treatment regime (Barkley, 2017).

Behavior Management

Applied behavior management has been the latest trend in behavior management for children with ADHD and ASD (Piffner & DuPaul, 2015). This is conducted in a one-to-one setting and usually involves a therapist working within the child's environment, to observe and redirect behavior. According to the CDC (2019), applied behavior management is a commonly used instrument in treating children who have ADHD and ASD. Piffner and Haack (2014) agreed that behavior management treatments are one of the latest trends used in nonpharmacological approaches in the treatment of ADHD and the related impairments. Shenoy et al. (2017) conducted a review disclosing that applied behavior management has been effective in treating ADHD and ASD for several years. Applied behavior management strategies have satisfied the criteria as evidence-based practices for the management of challenging behavior in ADHD and ASD in several studies (Fitzpatrick et al., 2016). Specifically, a meta-evaluation establishing the effectiveness of applied behavior management for young children with ASD demonstrated medium to significantly favorable effects on intellectual functioning,

development of speech, acquisition of living skills, and social functioning (Shenoy et al., 2017).

Mainly, behavior management is a useful therapy for ADHD, which improves children's self-control, self-confidence, and behaviors. The CDC (2019) substantiated that this treatment is effective in young children; however, its full effectiveness is realized when it is implemented by the parents. Most importantly, the healthcare providers deem it favorable for parents of children under 12 years old for skills training in behavior management. Mainly, for children under 6 years old, skills training of parents in behavioral management is more effective when institutionalized before the prescription of ADHD medication. The CDC (2019) posited that parents who complete behavioral management training are equipped with strategies, skills, and information that are instrumental in helping their children with ADHD succeed in relationships at home and school. According to Pfiffner and Haack (2014), behavior management as a treatment is useful when the emphasis is on changing the negative parent-child association patterns that are common in families with a child exhibiting problems in behaviors or suffering from ADHD. More so, in most countries, incorporating parents who are trained in behavior management is recommended as a primary intervention for children with mild or moderate ADHD (De Meyer et al., 2019).

The treatment involves designing behavioral changes aimed to reduce the prominence of the socially disruptive symptoms and to enable the patients to function more smoothly and improve their success in private and public environments. Notably, it features a face-to-face setting where the therapist works within the background of the child to observe and direct to reduce the frequency of occurrence of unwanted behaviors.

Shenoy et al. (2017) substantiated the goals of behavior management in treating ADHD and ASD include facilitation and stimulation of cognition, socialization, and language development. Another objective involves the reduction of autism-bound maladaptive behaviors such as stereotypy and rigidity and removal of unspecified maladaptive acts such as irritability, impulsivity, and hyperactivity. Lastly, behavior management is aimed at elevating the stress burden among the family (Shenoy et al., 2017). However, the main aim of behavior management is to investigate the interaction between the patients and their environment while formulating intervention strategies to reduce unwanted behavior and encourage socially accepted behaviors.

Behavior management is used to complement desired behaviors and reduce reckless actions. This treatment promotes what caregivers and parents ought to do before, after, during, and between the episodes of wanton behaviors. Notably, behavior management uses applied behavior analysis, which is an approach that follows up with the progress of the child in improving his or her skills (Barbaresi et al., 2020). Applied behavior is a science of which procedures rely on behavior principles through systematic experimentation (Bailey & Burch, 2017). Healthcare providers have employed applied behavior science effectively to change socially relevant behaviors of people with autism spectrum disorder (Leaf et al., 2021).

Theoretical overview of behavior management. The practices, skills, or strategies applied in behavior management are based on the contingency theory (Pffifner and Haack, 2014). Notably, contingency theory suggests that behavior is a function of resulting consequences. In other words, the exhibition of any behavior is based on its effects. For instance, if a behavior can produce a positive result, a person is likely to

repeat the behavior. On the other hand, if an action has a negative effect, the person is expected to refrain from it (Pfiffner & DuPaul, 2015). Therefore, the frequency of a child's behavior can be aggravated by following it with positive reinforcement or favorable stimuli or by eliminating unfavorable incentives or negative reinforcement.

In contrast, the consistency of a behavior can be reduced by following it with a harmful stimulus such as a punishment or by dealing away with positive reinforcement. Pfiffner and Haack (2014) suggested that the application of contingency management for a period can result in shaping the behavior of the child to achieve the intended goals or objectives. Lastly, behavior management treatment is associated with the underpinnings of social learning theory that integrates the principles of contingency theory and other factors such as designing and imitation of identified behaviors and cognitive factors including parent behaviors and parent evaluations and characteristics of child behavior, respectively.

Interventions of behavioral management. In structuring behavior management interventions, it is first paramount to conduct a functional behavioral assessment (FBA). The analysis includes observing or identifying the target positive and negative behaviors. In other words, this analysis incorporates the learning theory and operant behavior principles (Fitzpatrick et al., 2016). Notably, these principles depend on a thorough observation and definition of behavior and recognizing that behaviors serve a purpose or function (Fitzpatrick et al., 2016). According to Shenoy et al. (2017), this treatment is based on the theoretical foundations of operant and learning conditions that include targets attached to positive reinforcement. After identification of the behaviors, factors in the children's environment associated with the occurrence of the behavior should be

identified (Pfiffner and Haack, 2014). This is because individuals diagnosed with ADHD or ASD appear to react differently to reinforcements or incentives than do their counterparts (Morsink et al., 2017).

It is important to note that these factors in the child's settings occur immediately before and after the occurrence of the behaviors that may be causing or maintaining the chances of the behavior observed or identified. Therefore, the function of the behavior or the cause of the behavior can be established (Pfiffner and Haack, 2014). For example, the role of a targeted behavior can revolve around seeking attention or evading work. Specifically, Pfiffner and Haack (2014) posited that the target area describes the areas of functional impairment affecting the everyday life of the child diagnosed with ADHD or ASD. Another important aspect of this model involves the definitions of the behaviors with their consequences and antecedents to establish their objectivity and measurability.

Therefore, this analysis assists in the development of the behavior plan that is paramount in changing the defined consequences and antecedents (D. F. Curtis et al., 2020). It is essential to mention that these antecedents and consequences are responsible for sustaining the target behavior. Most importantly, changing the probability of the occurrence of the behavior in the right way (decreasing or increasing) is achievable. Therefore, the FBA serves to collect data that determine the desirable consequences that can maintain a child's particular behavior (Fitzpatrick et al., 2016).

As mentioned earlier, to realize the full potential of behavior management in treating children with ADHD and ASD, parents' involvement is critical (Curtis et al., 2020). Therefore, another critical intervention surrounds parent-child interaction modifications. Notably, behavior management treatment emphasizes changing negative

interactions pattern between a child and a parent that is prevalent among families with a child suffering from ADHD and ASD (Pfiffner and Haack, 2014). These relational or interaction patterns are also known as the coercive process. The coercive process refers to the procedure in which the parents and children regulate one another's behaviors through negative reinforcement (Pfiffner & Haack, 2014). For instance, this negative interaction or coercive process is manifested when a child engages in unwanted behavior such as noncompliance with a parent's instructions, and the parent ends up responding negatively. The responses from both the child and the parent create a cycle or a pattern over time that escalates in severity or emotional tone (Pfiffner & Haack, 2014). Either the parent or the child adheres to the demand of the other, ending the process, and reinforcing the aggravated negative behavior trend.

Therefore, many of the functional impairments and associated behavioral problems manifested by the children become supplemented through the circle. This process leads to adverse outcomes, such as poor educational performance, peer relations, and social skills (Bunford et al., 2018). Hence, such scenarios call for behavior management training that directly addresses the dysfunctional child-parent relationship discussed above by equipping the parents with skills of modifying antecedents and consequences to decrease the probability of occurrence of the coercive process and enhance the child's behavior as well as the family associations (Kamimura-Nishimura, 2019).

Parent training. Living with a child, adolescent, or young adult diagnosed with ADHD can be extremely stressful if behaviors cause a daily disruption. It can be especially disturbing if defiant behaviors are reinforced by reacting the wrong way.

Sometimes this behavior can escalate into aggression; this can jeopardize the safety of the student as well as parents, caregivers, and teachers (Shimabukuro et al., 2017). Behavior parent training (BPT) is an effective evidence-based approach to the behavior management of children with ADHD. The goal of this approach is to increase the effectiveness of parent-child interactions in relation to severe behaviors. During parent training, the parent receives guidance on how to interact with their children by learning skills to reduce unwanted behavior, increase parent-child relationships, and increase positive behavior. This method has proved to not only improve the overall family dynamics, but it reduces the stress encountered by parents of children with ADHD (Ciesielski et al., 2020).

Adverse Effects of Diagnosis

In many cases, society is unkind to people diagnosed with ADHD and their motivation is being driven by ignorance of the affliction. Children with ADHD are occasionally bullied and left out of social events like sports. In addition, those children who are mainstreamed in regular education classes may feel as though they are “singled out” when they received services in class (A. Rubin, personal communication, September 1, 2020). Parents are less likely to have their children treated with medication if the child or parent feels as though there is a stigma involved, whether it is internally or socially (Mueller et al., 2012).

The prevalence of this situation has led to negatively impacting children’s self-esteem, with many of them choosing to become introverts (Al-Yagon et al., 2020). Another adverse effect of ADHD diagnosis is the rampant occurrence of misdiagnosis that might result in underdiagnoses or overdiagnosis (Manos et al., 2017).

ADHD outcomes are measured by two metrics: functional impairment and performance. Children with ADHD are more susceptible to underperforming in their academic endeavors (McCue, 2022). Taking standardized tests is often more challenging for adolescents and children diagnosed with ADHD (Arnold et al., 2020). As the child grows into an adult, these experiences may become a part of their beliefs and decisions regarding how they chose to treat their ADHD.

Reflecting on the problems that persist until adulthood, adults with ADHD may have difficulty obtaining and/or even keeping steady employment. ADHD can be associated with problematic family relationships and socializing with peers (Klein et al., 2012). Adults suffering from ADHD have been seen to take unnecessary risks, leading to negative outcomes like accidents and car crashes (Romo et al., 2019). Individuals with ADHD may be impulsive and may not take into consideration immediate or long-term consequences which may result in over-indulging in behaviors like smoking and drinking alcohol (Sayal et al., 2018). Also, research shows that other risky behaviors associated with ADHD are unprotected sex and promiscuity (Garcia et al., 2012). Individuals with ADHD are also at risk for behaviors such as gambling, overeating, and video game addiction (Cortese et al., 2013; Waluk et al., 2016). Other notable mental problems in adulthood include mood disorders, suicide ideation, depression and anxiety, and risk of self-injury (M. R. Taylor et al., 2014).

Many adults currently live with undiagnosed ADHD. According to studies conducted, individuals with ADHD are predisposed to develop addictions (Schellekens et al., 2020). This population is more susceptible to drug abuse as they tend to self-medicate. The drug of choice for those individuals is primarily stimulant drugs as this

increases the dopamine levels in their brains that is lacking due to their untreated ADHD (Carpentier & Levin, 2017). According to van Emmerik-van Oortmerssen et al. (2012), approximately one out of every four patients diagnosed with ADHD have a substance use disorder (SUD). Internet addiction has also been linked to those with ADHD (Wang et al., 2017).

Positive ADHD Traits

Not all aspects of having ADHD are challenging. Ironically, the very traits that are perceived to be detrimental to the individual with ADHD are assets (Thurik et al., 2016). These strengths may include creativity, flexibility, spontaneity, and the ability to become hyper-focused (Girard-Joyal & Gauthier, 2022). The strength of spontaneity which may be viewed as impulsivity by some is the very trait that is beneficial to entrepreneurs (Wiklund et al., 2017). Hyperactivity is also a supportive trait when it comes to the devotion and endless hours of running one's own organization (Antshel, 2018). Recent studies have shown that entrepreneurs possess ADHD traits that enable them to embrace their passion for creating which results in success (Hatak et al., 2021). There are many accomplished people who have been diagnosed with ADHD, including celebrities, scientists, and well-known leaders (CHADD.org, 2017). Albert Einstein is thought to have had ADHD and autistic spectrum disorder (ASD). Experts in the field of ADHD believe that Einstein's well-known traits of disorganization, poor time management skills, and forgetfulness were amongst the symptoms that qualify for a diagnosis of ADHD (Rao, 2022). There is often a link between disabilities and exceptional abilities. Many individuals who experience impulsive and distractable behaviors are phenomenal emergency health care specialists, paramedics, and fire

fighters. It is believed that this is due to the adrenaline that is stimulated during the fight-or-flight response. During this response, the individual is hyper-focused and can utilize superior analytical skills (Kessler, 2013).

Chapter 3: Methodology

Aim of the Study

The problem that was addressed in the research study was that many individuals were not diagnosed with ADHD until they were adults (Jones, 2022). The purpose of this study was to examine the experiences and beliefs of the participants regarding the management of ADHD and the impact that experiences may or may not have regarding the quality of life during adulthood. The interpreted data revealed a clearer understanding of the motivation behind choices of current treatment, life choices, and life perspectives of adults diagnosed with ADHD. It also revealed the impact of an early diagnosis of ADHD.

Qualitative Research Approach

The research study utilized a phenomenological qualitative design approach for data collection. According to Creswell (2017), a qualitative approach to research was warranted when open ended questions were used to collect data regarding individual experiences. Using a phenomenological research method to capture the lived experiences of individuals diagnosed with ADHD focused on the perspective of the subject. Interpretative Phenomenological Analysis (IPA) proved to be useful in examining beliefs and experiences of an individual that may be complicated, ambiguous, and/or emotionally charged (Alase, 2017).

Participants

Purposive sampling was used to identify those with ADHD from specific areas of the United States. This type of sampling ensured that respondents were informed regarding the subject matter in the research study. The research participant age range for

this study was from 18 to 65 years old.

The researcher used Facebook, LinkedIn, and CHADD to recruit participants for the research study. According to Creswell (2017), this type of research enabled participants who experienced the phenomenon to expressively convey their perceptions of lived experiences. In addition, Creswell maintained that qualitative methods were used to retrieve elements regarding phenomena that included emotions, feelings, and frame of mind. The conditions of being a participant in this study included the ability to commit time to participate in the study and having been diagnosed with ADHD at any time in their lives. The number of participants in this study was 15. Although, a sample size of 3 to 10 participants was recommend for a phenomenological study (Duke, 1984 as cited in Creswell & Poth, 2018), it was documented that other researchers conducted this type of research with more subjects (Edwards, 2006 as cited in Creswell & Poth, 2018). Creswell (2015) stated that a greater sample size affected the quality of the results as collecting and analyzing qualitative data can be very time consuming.

Instrument

Data were collected to answer the research questions using an interview protocol with open-ended questions developed by the researcher during structured interviews (see Appendix A). This was done either via telephone or video conferencing. The research protocol was developed with the assistance of both formative and summative committees prior to its use (Reeves, 2020). The formative committee consisted of the researcher, her applied committee dissertation chair, and a professional colleague familiar with the research. The summative committee consisted of the researcher's applied dissertation committee member and two additional professional colleagues familiar with the research.

Open-ended survey questions were developed by the researcher and were implemented individually during a structured interview. This was via telephone or via video conference.

Procedures

Once the researcher obtained International Review Board (IRB) approval, the study began by recruiting participants. Participants in the study included adults who were diagnosed with ADHD at any time in their lives. A sampling of 15 participants were included in this study.

Sources for recruiting participants were adult members of CHADD, LinkedIn subscribers, and Facebook, using purposeful sampling. The purposeful method presented accessibility issues regarding participants; therefore, snowball sampling was used as a secondary method of recruiting participants (Palinkas et al., 2015). Participants recruited through the purposeful method may refer candidates, thus providing an ideal organic recruitment scenario (Parker et al., 2019). A campaign was created for Facebook and LinkedIn by posting a flyer (see Appendix B) with information containing the purpose of the study, the instrument used to collect data, criteria for participation eligibility, and researcher contact information. This flyer was also submitted along with pertinent information regarding the study to be reviewed by the advisory board of CHADD for site approval to be granted.

Once site approval from CHADD was granted and IRB approval was granted by Nova Southeastern University, the recruitment campaign began. Subjects contacted the researcher through email and telephone to express interest in participating in the study. Once the candidate understood all the information encompassed in the study and agreed

to participate, a consent form was emailed for the potential subject to sign through DocuSign. Once this was done, an interview was scheduled and held via a video conferencing or telephone.

Because sample selection had such a profound effect on the results of a qualitative study, the theoretical approach was used as it served as purposeful sampling (Farrugia, 2019). According to Alase (2017), a qualitative interview was key in collecting data regarding experiences from an individual. In addition, Kvale (2007) also indicated that a qualitative interview was imperative to explore paths in which interviewees understand and experience their world.

Data Analysis

Once collected, the qualitative data were reanalyzed by coding and recording themes (Creswell & Poth, 2018). Creswell (2015) stated that there were six steps to analyzing qualitative data. These steps were to collect the data, prepare the data by organizing it, read through the data in order to get a general idea of its content, code the data and assign code labels, code the data to create themes, and code the description and prepare it for the research report (Creswell, 2015).

The thematic approach to analyzing data proved to be flexible as well as an easy method to grasp by researchers with extraordinarily little experience (Taylor et al., 2018). During the interview process, the researcher condensed their notes and review the individual's responses with the individual to ensure accuracy (Kvale, 2007). During this review, the subject had an opportunity to comment on the researcher's interpretations; corrections were made as needed. This occurred immediately after the interview.

Ethical Considerations

There were several ethical issues to consider when dealing with human subjects. Therefore, it was crucial to be completely transparent with all stakeholders as well as not pressuring potential participants into signing consent forms (Creswell & Poth, 2018). The researcher informed subjects of the purpose of the study, confidentiality, and assured them that their participation was completely voluntary. Creswell and Poth (2018) contended that for an ethical interview to take place, it was imperative that the subject understood the purpose of the study before the interview occurred. Furthermore, the interviewees were assured that they were participating strictly on a volunteer basis and that confidentiality was of the utmost importance. Moreover, the researcher followed all guidelines set forth by Nova Southeastern University and the IRB.

Trustworthiness

Throughout the study, the researcher strived to achieve a level of trustworthiness. Every effort was made on the part of the researcher to ensure that she gathered valid data. The researcher carefully followed qualitative research procedures to analyze the data gathered. The researcher made every effort to report the findings while simultaneously avoiding any research bias (Creswell & Guteterman, 2019). Finally, the researcher made every effort to instill confidence in the research findings as well as in the ability to generalize the study results to other settings (Crewel & Guetterman, 2019).

Chapter 4: Findings

Introduction

The problem addressed in this research was that many individuals were not diagnosed with ADHD until they were adults. The purpose of this study was to examine the experiences and beliefs of the participants regarding the management of ADHD and the impact that experiences may or may not have regarding the quality of life during adulthood.

This study used a phenomenological qualitative approach to collect data from 15 adults diagnosed with ADHD about their life experiences. This study utilized a cross-sectional design to collect data via virtual conference interviews and phone calls using an interview protocol that the researcher developed to gather data needed to answer the study's four research questions. Qualitative methods were used to analyze the data to answer the research questions. The qualitative data analysis methods included coding the interview data, organizing the data, identifying categories, identifying themes in the categories, displaying primary themes in a table, and summarizing the primary themes to answer the research questions.

In Chapter 4 is a description of the 15 purposefully selected adult participants with ADHD. There is a table that depicts the alignment of the 10 interview questions with the four research questions. Table 2 groups participants based on the ages they were initially diagnosed with ADHD. The table is useful to guide data analysis for Research Question 1 by organizing the 15 participants into two groups. The two groups are (a) Adults Diagnosed with ADHD in Childhood and (b) Adults Diagnosed with ADHD in Adulthood.

In Chapter 4, each of the four research questions is restated. One or more categories that emerged from the data associated with a specific group of interview questions, aligned with a research question, are indicated. Primary themes that evolved from each category are delineated. Finally, primary themes are used to answer each of the four research questions.

Participants

The 15 participants were a purposefully selected sample of adults with ADHD. The sample was selected from specific areas of the United States. The ages in the sample ranged from 18 to 65 years. The ages of participants when participants were initially diagnosed with ADHD ranged from 8 years to 59 years. The sample was purposefully selected from Facebook, LinkedIn, and CHADD.

Data Analysis for Interview Questions

Research Questions and Alignment With Interview Questions

There are 10 interview questions that collected data for four research questions. Table 2 displays the alignment of each of the four research questions with the specific interview questions.

Table 2*Research Questions and Alignment With Interview Questions*

Number	Research Question	Interview Question
1	What differences, if any, are there in the quality of life between those diagnosed with ADHD in childhood and those diagnosed with ADHD in adulthood?	1, 3, 4, 7, 8, 9, 10
2	What type of childhood experiences affect the outcome of how adults treat ADHD?	2, 3, 4, 7, 8, 9
3	How have childhood experiences stemming from ADHD affected life choices in adults?	2, 3, 4, 6, 7, 8, 9
4	What factors determine how an adult manages their ADHD?	5, 6, 8, 9

Ages at Diagnosis With ADHD

Findings in Table 3 present the ages of the 15 participants when they were initially diagnosed with ADHD. The ages of the 15 participants, at the time of diagnosis, ranged from 8 years to 59 years. Table 3 shows the data from Interview Question 10 (How old were you when you were initially diagnosed with ADHD?) used to establish the two groups required to respond to Research Question 1.

Operationally defined for this study and for the response to Research Question 1, Participants 1-7 formed the group diagnosed with ADHD in childhood. Participants 1-7 were diagnosed at 8, 9, 9, 10, 15, and 19 years of ages, respectively. The second group is composed of eight participants (Participants 8-15) with ages that ranged from 29 years to 59 years at the time of initial diagnosis of ADHD. Operationally defined for this study and for the response to Research Question 1, the eight participants were diagnosed with ADHD in adulthood.

Table 3*Age at Time of Diagnosis With ADHD (N =15)*

Participant	Age at Time of Diagnosis with ADHD
1	8
2	9
3	9
4	10
5	15
6	18
7	19
8	29
9	35
10	37
11	43
12	44
13	47
14	55
15	59

Research Question 1, Categories, and Primary Themes

The following are (a) restatement of Research Question 1, (b) category (Category for Diagnosis with ADHD in Childhood) that evolved from the data collected from the seven interview questions aligned with Research Question 1 and Participants 1-7, (c) category (Category for Diagnosis with ADHD in Adulthood) that evolved from the data collected from the seven interview questions aligned with Research Question 1 and Participants 8-15, and (d) tables of primary themes emerging from each category.

Research Question 1 is, what differences, if any, are there in the quality of life between

those diagnosed with ADHD in childhood and those diagnosed with ADHD in adulthood?

Category for Diagnosis With ADHD in Childhood

Adults' Quality-of-Life Indicators for those Diagnosed with ADHD in Childhood

Primary Themes

Four themes emerged in the category, and the themes are presented in Table 4. The four themes convey the quality of life for adults diagnosed with ADHD in childhood. The four themes emerged from the interview data associated with the seven interview questions aligned with Research Question 1 and Participants 1-7. Theme 1 is, struggles with procrastination, disorganization, and forgetfulness in school. Theme 2 is distractibility problems occur when performing monotonous tasks on my job. Theme 3 is, ignorance of peers about my ADHD struggles results in low self-esteem, anxiety, and anger issues in school. Theme 4 is, medications stifle my creativity in high school courses but prolong my focus on lesson content (Table 4).

Table 4

Quality of Life for Adults Diagnosed With ADHD in Childhood (N=7)

Number	Primary Theme
1	Struggles with procrastination, disorganization, and forgetfulness in school
2	Distractibility problems occur when performing monotonous tasks on my job
3	Ignorance of my peers about my ADHD struggles results in low self-esteem, anxiety, and anger issues in school
4	Medications stifle my creativity in college courses but prolong my focus on lesson content

The four themes are reflected in interview statements from participants 1-7. In subsequent paragraphs are selected statements from 4 of 7 participants. The four participants are two high school students, one community recreational center coordinator, and one college student.

Interview data from a high school student participant reflected Theme 1 (struggles with procrastination, disorganization, and forgetfulness in school). The high school student reported performing academically well in classes she liked and poorly in classes she did not enjoy. The high school student responded, “academically, I think I perform well in high school, because I pass standardized tests. Standardized tests provide me with the dopamine rush that makes me perform well. Yet, for many classroom assignments, I always wait until the last minute to work on the assignments. I forget things and get zeros because I may lose the assignments or leave them at home. I perceive myself as being extremely disorganized and forgetful. My desk is a mess, and my locker is a mess according to teachers in parent conferences. Further, I perform well in classes I like, but not well in classes I do not like. The other night, I was late turning in a paper. I am still in high school.”

Dopamine is a medication that is a naturally formed chemical in humans. The purpose of Dopamine is to enhance the pumping strength of the heart. Another purpose is to enhance the blood flow to the kidneys (Prakash et al., 2021). The medication is used to treat conditions that happen when patients experience shock. The shock might result from conditions such as heart attack or trauma, or other significant medical situations (Owens, 2020).

Interview data from a community recreation center coordinator suggested Theme 2 (distractibility problems occur when performing monotonous tasks on my job). The coordinator said, “professionally, I struggle with details that are monotonous, like paperwork, and getting to work on time. I became distracted. I was reprimanded several times for being late with paperwork, and the reprimands caused tensions between me and my supervisor. However, I am incredibly good at supervising, counseling, and interacting with children.”

Interview data from another high school student echoed Theme 3 (ignorance of my peers about my ADHD struggles resulted in low self-esteem, anxiety, and anger management issues). The high school student perceived her ADHD struggles resulted in low self-esteem. Low self-esteem manifested itself in anxiety and anger issues. The student reported, “I am aggressive in high school because of anger and anxiety issues. I beat up boys and often get teased by boys. I am always moody. Academically, I am horrible in class and hang out with bad students in high school. Sometimes, I skip attending school. I have low self-esteem.”

Theme 4 (medications stifle my creativity in college courses but prolong my focus on lesson content) is illustrated in the interview data such as statements made by a college student. The student is a Journalism major. She established a system to improve her college grades. A concern was achieving balance to improve her creativity and prolong her focus on the lesson content. The college student said, “sometimes, when I write, I do not take medications (meds) because the meds shut down my creativity. I require creativity in writing assignments, project work, and small group activities. With lectures in my Journalism program of study, I make sure I sit in front of the class and try

to record the lesson when I can. I am a good college student. In my sophomore year, I noticed that I had to put a system in place for organization.”

Category for Diagnosis With ADHD in Adulthood

Adults’ Quality-of-Life Indicators for those Diagnosed with ADHD in Adulthood

Primary Themes

Seven themes emerged in the category, and the themes are presented in Table 5. The seven themes convey the quality of life for adults diagnosed with ADHD in adulthood. The seven themes emerged from the interview data associated with seven interview questions aligned with Research Question 1 and Participants 8-15.

Theme 1 is, lack of focus and distractibility challenged my reading of our workplace instructions, procedures, and manuals. Theme 2 is, impulsivity contributed to me constantly interrupting friends, and my friends avoided socializing with me. Theme 3 is, hyperactivity helped me become a diligent worker, but there was difficulty getting to work on time; Theme 4 is, use of sports as an outlet for hyperactivity improves my physical, mental, emotional, and social well-being. Theme 5 is, experienced successes in a fast-paced logistics-oriented job but no success in getting desired nuclear missile training job; Theme 6 is, worked to become successful entrepreneur but still traumatized somewhat by childhood trauma stemming from undiagnosed ADHD. Theme 7 is, unacceptance of my ADHD by spouse contributed to my marital disharmony.

Findings in Table 5 depict these seven themes related to the quality of life for adults diagnosed with ADHD in adulthood. Subsequent to the presentation of Table 5 are selected statements. The selected statements are from the interview data of a state government worker, hospitality worker, firefighter, corporate trainer, military enlisted

person, successful entrepreneur, and a stay-at-home mother.

Table 5

Quality of Life for Adults Diagnosed With ADHD in Adulthood (N=8)

Number	Primary Theme
1	Lack of focus and distractibility challenged my reading of our workplace instructions, procedures, and manuals
2	Impulsivity contributed to me constantly interrupting friends, and my friends avoided socializing with me
3	Hyperactivity helped me become a diligent worker, but there was difficulty getting to work on time
4	Use of sports as an outlet for hyperactivity improved my physical, mental, emotional, and social well-being
5	Experienced successes in a fast-paced logistics-oriented job but no success in getting desired nuclear missile training job
6	Worked to become successful entrepreneur but still traumatized somewhat by childhood trauma stemming from undiagnosed ADHD
7	Unacceptance of my ADHD by spouse contributed to my marital disharmony

Suggestive of Theme 1 (lack of focus and distractibility challenged my reading of our workplace instructions, procedures, and manuals) are statements from a state government worker. The worker had difficulty reading printed material. The reading difficulty was caused by a lack of focus and distractibility. There was an adverse effect on his state government job. The responder said, “yes, I do not read much because it is difficult for me to read. My reading difficulty comes from a lack of focus and distractions. I am good at comprehending information only if I listen to the information. I went to a doctor in search of Adderall to save my state government job. I told the doctor

that I was going to lose my state government position if I could not read my workplace instructions, procedures, and manuals. I informed the doctor I required help to become more focused in my reading and to tune out distractions. The doctor diagnosed me with ADHD.”

Adderall is a prescribed medication to treat ADHD and narcolepsy. Adderall helps to balance specific chemicals in the brain that contribute to hyperactivity and impulsivity. The medication enhances a user’s ability to pay attention and become focused on an activity such as a reading activity. At the same time, the medication controls impulsive behaviors (Girard-Joyal, et al., 2022).

Theme 2 (impulsivity contributed to me constantly interrupting friends, and my friends avoided socializing with me) is reflected in the interview data and the statements of a hospitality worker. The worker indicated, “I see myself as being impulsive and possessing an outgoing personality, however some friends and colleagues at work do not like to socialize with me. These friends and colleagues often do not want to be in my presence and avoid me when possible. They avoid me because I am a prolific talker with a proclivity to frequently interrupt others. Additionally, I am challenged with processing information when other colleagues are conversing. I am aware I lack focus, and I am impulsive. Often, I feel anxiety in the presence of some of my friends and colleagues.”

Suggestive of Theme 3 (hyperactivity helped me become a diligent worker, but there was difficulty getting to work on time), a firefighter said, “I am a diligent worker who goes beyond the call of duty to finish a work task. However, I frequently have trouble getting to work on time. Because of my ADHD, I have a difficult time working as a firefighter on mundane administrative tasks that are not interesting to me. My frequent

lateness and lack of focus on some administrative tasks contribute to tensions with me, my supervisor, and my firefighting colleagues.”

Theme 4 (use of sports as an outlet for hyperactivity improves my physical, mental, emotional, and social well-being) was reflected in the interview data, such as the statements of a corporate trainer. The corporate trainer experienced hyperactivity. The responder stated, “I am hyperactive and use sports as an outlet for my hyperactivity. I always played sports in high school and college. Participation in sports is extremely helpful. Even now, I participate in sports connected with my corporate job, church, and community. Active involvement in sports helps my hyperactivity and quality of life physically, mentally, emotionally, and socially.”

Theme 5 (experienced successes in a fast-paced logistics-oriented job but no success in getting desired nuclear missile training job) is reflected in the interview data, such as the statements of a high-ranking military enlisted man who was not successful in his quest to gain entry to the nuclear missile training program and successfully worked in a different military program more suitable for his ADHD condition. The military responder reported, “when I was in college, I had challenges with focus but graduated from college. In the military, my test scores and college grades qualified me to enroll in the nuclear missile training program. I failed early in the program because I had problems with the multiple steps in the nuclear power learning process. Likewise, I was unable to comprehend and demonstrate some of the steps. I also have problems following a recipe because of the sequential steps. As a result, in the military I transferred to a logistics-oriented job. I am highly successful in the logistics-oriented job because the job is fast paced and allows me to multitask.”

Theme 6 (worked to become successful entrepreneur but still traumatized somewhat by childhood trauma stemming from undiagnosed ADHD) emerged from statements like the statements of a successful entrepreneur. The entrepreneur possessed vivid memories of trauma experienced in his childhood because of a late diagnosis and an unkind understanding of his ADHD by family members and peers. The entrepreneur responded, “I was bullied by family members in my early childhood. My family members poked fun at me. My mom thought I was lazy. Yet, I knew I was smart. I knew my thinking was different than the thinking of other adolescents. Because I was very forgetful, there was severe punishment for me. I used to get in trouble for daydreaming in school. Now, I am a successful business owner.”

The final Theme 7 (unacceptance of my ADHD by spouse contributed to my marital disharmony) was echoed in the interview data and reflected in statements of a stay-at-home mother. She had a daughter diagnosed with ADHD. The mother feels her husband’s misunderstanding of ADHD negatively impacted the marriage. The mother responded, “I am in the process of getting a divorce. I currently have joint custody of my 10-year-old daughter and an 8-year-old son. My husband is supportive when it comes to children and tries to be supportive with my emotional state. Yet, he never understood my ADHD which caused tensions between us. My daughter has been diagnosed with ADHD, and my husband does not believe that ADHD is a mental disorder.”

Answering Research Question 1 With the Findings

In Research Question 1, it was asked, what differences, if any, are there in the quality of life between those diagnosed with ADHD in childhood and those diagnosed with ADHD in adulthood? The analyzed data showed adults diagnosed with ADHD in

childhood struggled with procrastination, disorganization, and forgetfulness in the schools. There were distractibility problems occurring when performing monotonous tasks. Peers demonstrated ignorance about the adults' ADHD, resulting in the ADHD responders experiencing low self-esteem, anxiety, and anger issues. Likewise, the adults diagnosed with ADHD in childhood reported medications stifled creativity in high school courses but prolonged their focus on lesson content.

Conversely, adults diagnosed with ADHD in adulthood reported being challenged reading workplace instructions, procedures, and manuals. Because of their ADHD, some adults constantly interrupted the conversations of friends, and friends avoided socializing with them. There were some adults diagnosed with ADHD in adulthood who were diligent workers but struggled to get to work on time. Sports were used as an outlet for hyperactivity to improve physical, mental, emotional, and social well-being. Some responders were successful entrepreneurs but were still traumatized by childhood trauma stemming from undiagnosed ADHD. Unacceptance of ADHD by loved ones contributed to marital disharmony.

Research Question 2, Category, and Primary Themes

The following are (a) restatement of Research Question 2, (b) category that evolved from data collected with the six interview questions aligned with Research Question 2, and (c) a table of primary themes. Research Question 2 is, what type of childhood experiences affect the outcome of how adults treat ADHD?

Category

Childhood Experiences Contribution to How Adult Treat ADHD

Primary Themes

Six themes emerged in the category, and the themes are presented in Table 6. The six themes represent childhood experiences that affect the outcome of how adults treat ADHD. The themes emerged from the interview data associated with the six interview questions aligned with Research Question 2 and Participants 1-15.

Table 6

Childhood Experiences Contribution to How These Adults Treat ADHD (N=15)

Number	Primary Theme
1	ADHD adolescents were my best friends in childhood; therefore, in adulthood I sought ADHD adults for friendships
2	My parents working all the time in my childhood contributed to my loneliness and being an introvert in adulthood
3	Mother, being supportive during childhood motivated, me to want to improve myself in adulthood
4	Positive childhood experiences with ADHD empowered me as an adult, and now I am self-empowered to improve my adult life
5	Earlier diagnosis of ADHD in my childhood facilitated me to employ more learning and behavior management skills as an adult

Theme 1 (ADHD adolescents were my best friends in childhood; therefore, in adulthood I sought ADHD adults for friendships) is reflected in the interview data. For instance, a participant posited, “many of my close friends in middle school and high school were diagnosed with ADHD. I encouraged them to attain the diagnosis. They became my close friends. We understood each other and respected each other. I do not get along well with others that do not have ADHD. As an adult, I try hard to bond with adults who possess ADHD.”

Theme 2 is my parents working all the time in my childhood contributed to my loneliness and being an introvert in adulthood. Theme 2 is suggested in the statements of a participant who replied, “mom and dad divorced when I was 4 years of age. Mom moved away with my brother and me to another town. Mom worked all the time during my childhood. I felt alone and introverted a lot of the times. I still have the same feelings sometimes as an adult.”

Theme 3 (mom, being supportive during childhood, motivated me to want to improve myself in adulthood) emerged from the interview data. To illustrate, a responder reported, “my mom and dad were married during my childhood years, and they are still married. My ADHD was not on the radar during my early childhood years. Yet, mom was incredibly supportive of everything I did in my youth. The positive support contributed to me performing well in school. Mom perceived me as just a lazy smart student. I was disorganized and would argue with mom. Mom never saw my arguing as signs of ADHD. She just saw it as something that needed to be improved. Mom was always interested in my schoolwork and drove me to after-school practices for different sports. She was a stay-at-home mom. I got yelled at by mom. My mom thought I was a scatter brain who would not clean his room because he was lazy.”

Theme 4 relates to perceptions of being accident prone, and being accident prone has a foundation in some childhood experiences. Suggestive of the theme, a participant reported, “yes, in general, I am accident prone, I have been in five car accidents. I had concussions. In middle school and high school, I was prone to having accidents of a different type probably because of my ADHD.”

Theme 5 (positive childhood experiences with ADHD empowered me as an adult,

and now I am self-empowered to improve my adult life) evolved from the interview data. Consistent with Theme 5, a responder stated, “because of positive experiences in my childhood regarding my ADHD, I have great power. I feel self-empowered as an adult to adequately cope with my ADHD. I identified the causes of and solutions to my condition. I am working to reintegrate and realign my behavior management strategies for ADHD. I am writing in my journal. I am reevaluating my purpose for living and the positive direction to proceed to accomplish my goals as an adult. I am attempting to maintain an objective and a realistic view of myself and my future goals.”

Theme 6 (earlier diagnosis of ADHD in my childhood facilitated me to employ more learning and behavior management skills for ADHD as an adult) emerged from the interview data. Reflective of the theme, a respondent indicated, “diagnosing my ADHD sooner may have helped me more as an adult. In my childhood years, I internalized messages from peers and family for many years that I was lazy, unorganized, and messy. Peers and family members thought there was something wrong with me. I thought I was a loser because I was forgetful, unorganized, and impulsive. Finding out that I had ADHD and realizing that there were others like me might helped my self-esteem.”

Answering Research Question 2 With the Findings

In Research Question 2, it was asked, what type of childhood experiences affect the outcome of how adults treat ADHD? Findings showed ADHD adolescents who were best friends in childhood sought ADHD adults for friendships when they became adults. Parents who worked all the time contributed to the loneliness of ADHD responders and contributed to the ADHD responders becoming introverts in adulthood. There were moms who showed support during the childhood of the ADHD responders. The positive

support motivated the responders to want to improve themselves in adulthood. There were perceptions of being accident prone because of childhood experiences associated with ADHD. Positive childhood experiences existed for some responders. The positive support empowered them as adults to improve their lives. Early diagnosis of ADHD in childhood facilitated responders to employ more learning and behavior management skills as adults.

Research Question 3, Category, and Primary Themes

The following are (a) restatement of Research Question 3, (b) a category that evolved from data collected with the seven interview questions aligned with Research Question 3, and (c) table of themes. Research Question 3 is, how have childhood experiences stemming from ADHD affected life choices in adults?

Category

Childhood ADHD Experiences Influence on Adults' Life Choices

Primary Themes

Findings in Table 7 present six primary themes. These six primary themes represent childhood experiences stemming from how ADHD affected life choices in adults. The themes emerged from four specific interview questions responded to by Participants 1-15.

Table 7*Childhood ADHD Experiences Influence on Adults' Life Choices (N=15)*

Number	Primary Theme
1	Supportive mother of ADHD in my childhood helped me to live up to my life's choice of being a successful and a productive adult
2	ADHD contributed to my life's choice of being extremely outgoing and a good communicator
3	ADHD contributed to me being an industrious worker who always goes beyond what is required on the job
4	ADHD resulted in me establishing routines to function effectively with little reliance on meds
5	Regular use of meds (Adderall) and compensating for my weaknesses helped me become a successful business owner
6	I want stability in my future life, found a partner seeking stability, and I am teaching him to understand my ADHD

Theme 1 (supportive mother of ADHD in my childhood helped me to live up to my life's choice of being a successful and a productive adult) reflects a young man whose life's goal as a youth was to become a successful and a productive college student. He thought the care, understanding, and support provided by his mom during the young man's formative years helped him achieve his life's goal. In the interview, the young man shared, "my mom and dad were married during my childhood years, and they are still married. My ADHD was not on the radar during my early childhood years. Yet, mom was very supportive of everything I did in my youth. The positive support contributed to me performing well in school. Mom perceived me as just a lazy smart student. I was disorganized and would argue with mom. Mom never saw my arguing as signs of ADHD.

She just saw it as something that needed to be improved. Mom was always interested in my schoolwork and drove me to practice. She was a stay-at-home mom. I got yelled at by mom. My mom thought I was a scatter brain who would not clean his room because he was lazy.”

Theme 2 (ADHD contributed to my life’s choice of being extremely outgoing and a good communicator) is reflected in the interview data. A responder reported, “because of my ADHD, I am extremely outgoing and the life of the party. I have many friends who perceive me as a natural born performer. My ADHD helps me to easily maintain an enjoyable conversation and become a good communicator. I am even a better communicator now that I am more conscious of not interrupting others when they are conversing with me.”

Theme 3 relates to ADHD facilitating responders to become industrious workers who always go beyond what is required on the job. Suggestive of Theme 3, a responder replied, “because of my hyperactivity, ADHD contributed to me becoming an industrious worker who always goes beyond what is required on the job. Professionally, I am good and bad. On interesting jobs, I perform well. On jobs that are not interesting, I perform poorly. Now, I know how to seek jobs that interest me so I can use my energy and creativity to excel.”

Theme 4 (ADHD resulted in me establishing routines to function effectively with little reliance on meds) is suggested in the interview data of someone who stopped relying on meds at 16 years of age. The responder posited, " I stopped relying on meds at 16 years of age and function effectively socially and professionally. These were my life’s goals. I write everything down so I will not forget essential information, I try to stick to

routines. Frequently, I use post-it-notes and planning calendars. I always exercise and excessively drink coffee and tea. I work full-time and successfully support my family.”

Theme 5 [regular use of meds (Adderall) and compensating for weaknesses helped me become a successful business owner] is suggestive of the life’s choice of a successful business owner. The business owner responded, “I follow my doctor’s directions on when and how to take my prescribed meds. Further, I try to be cognizant of my weaknesses and compensate for the weaknesses. As a business owner, I try to hire employees with skill areas that I am weak in.”

Theme 6 (I want stability in my future life, found a partner seeking stability, and I am teaching him to understand my ADHD) centers on getting others who are an integral part of your life to understand ADHD. Illustrating this theme, a participant reported, “I have a partner who is stable with a good paying job. He and I want to go beyond simply being friends. He knows little about ADHD. I am teaching him about ADHD so we will have a good partnership soon.”

Answering Research Question 3 With the Findings

In Research Question 3, it was asked, how have childhood experiences, stemming from ADHD, affected life choices in adults? Results showed supportive moms of ADHD responders helped the responders achieve positive life’s choices of being successful and productive adults. Some ADHD responders became extremely outgoing and good communicators. ADHD shaped some responders into industrious workers who always go beyond what was required on the jobs. Some ADHD responders established routines to function effectively with little reliance on meds. Other responders had a regime of regular use of meds and compensated for weaknesses by hiring skilled employees. ADHD

responders desired stability in their future and sought partners with the same goals. The responders realized they had to help partners understand ADHD to experience sustained future stability.

Research Question 4, Category, and Primary Themes

The following are (a) restatement of Research Question 4, (b) category that came from data collected with the four interview questions associated with Research Question 4, and (c) table of themes. Research Question 4 is, what factors determine how adults manage ADHD?

Category

Factors Determining How Adults Manage ADHD

Primary Themes

Findings in Table 8 present five themes. The five primary themes represent factors determining how adults manage ADHD.

Table 8

Factors Determining How Adults Manage ADHD (N=15)

Number	Primary Theme
1	Early diagnosis
2	Talking to others with ADHD
3	Reading about symptoms of ADHD
4	ADHD life coaches
5	More modifications in the school/education arena to accommodate ADHD

Theme 1 (early diagnosis) was reported as the best way to manage ADHD. A responder stated, “the best factor in determining how to manage ADHD is to receive a

diagnosis early in the childhood years. Once a diagnosis is made, there is time to try different treatments until a treatment plan is identified that will adequately help you cope with the symptoms.”

Theme 2 pertains to talking to others with ADHD experiences. Indicating the theme, it was reported, “there are many of my friends, church members, and community members with ADHD. Talking to them informs me of treatments that work and those that do not work for them. Most people with ADHD will gladly share their experiences. Knowledge is power, and the best type of knowledge is firsthand information from those with ADHD and those who are capable of effectively managing the ADHD.”

Theme 3 (reading about symptoms and treatments) focuses on taking advantage of the prolific amount of information on the Internet. A responder said, “there are many books that explain the symptoms and treatment for ADHD. However, my best source of information comes from the Internet. I carefully select my key search terms and always discover much important information on alternatives to prescribed meds as well as behavior management strategies. I think the Internet provides me with a plethora of good options to manage my ADHD.”

Theme 4 (ADHD life coaches) pertains to online and in-person life coaches. It was reported, “life coaches help ADHD adolescents and adults achieve their full potential. The coaches support life skills through tailored learning experiences. My coach collaborates with me during evening hours. My coach helps me with my stress, distractions, forgetfulness, and guides me on how to follow instructions.”

Theme 5 (more modifications in the school/education arena to accommodate ADHD) reflects that more resources and different pedagogical approaches need to exist

in Grades K-12 to support students with ADHD. Aligned with the theme, a responder said, “I wish for the school/education to have more considerations and modifications for people like me. As an example, I asked the teacher if I could walk around the room because I could not sit still. I needed to move around, and the teacher said no. The teacher said you should be able to sit here for 30 minutes without moving. I went to the doctor for the cold virus, and I was diagnosed with ADHD. I would have had fewer challenges in school if my teachers knew how to deal with my ADHD and focused on sharing strategies and resources to help me manage my ADHD. Teachers tended to instruct all students as if all students were the same. Some students needed research-based modifications in curriculum and instruction.”

Answering Research Question 4 With the Findings

In Research Question 4, it was asked, what factors determine how adults manage ADHD? Findings from the interview data showed early diagnosis of ADHD and conversations with adolescents and adults with ADHD helped with the management of ADHD. Books may be read on the topic and Internet searches, using good key search terms, conducted to locate symptoms and treatments. Also effective were ADHD life coaches. Last, modifications to Grades k-12 curriculum and pedagogical approaches provided support for adults to manage ADHD. Teachers must be aware there must be modifications of the curriculum and instruction to better accommodate ADHDs.

Chapter 5: Discussion

Introduction

The problem addressed in this research was that many individuals were not diagnosed with ADHD until they were adults. The purpose of this study was to examine the experiences and beliefs of the 15 participants regarding the management of ADHD and the impact that experiences may or may not have regarding the quality of life during adulthood.

Results in Chapter 4 are critiqued and interpreted in Chapter 5. There is a discussion pertinent to meaning, understanding, relevancy, and importance of the findings. Implications are delineated, and there are vital suggestions for special education teachers, regular education teachers, school administrators, and parents of ADHD children. Limitations of the study are important to know for readers who want to use the findings in their work settings. Limitations are shared with readers. Chapter 5 ends with conclusions and reflections.

Critique and Interpretation of Findings

Research Question 1 is, what differences, if any, are there in the quality of life between those diagnosed with ADHD in childhood and those diagnosed with ADHD in adulthood? The analyzed data showed adults diagnosed with ADHD in childhood struggled with procrastination, disorganization, and forgetfulness in the schools. There were distractibility problems occurring when performing monotonous tasks. Peers demonstrated ignorance about the adults' ADHD, resulting in the ADHD responders experiencing low self-esteem, anxiety, and anger issues. Likewise, the adults diagnosed with ADHD in childhood reported medications stifled creativity in high school courses

but prolonged their focus on lesson content.

Similarly, adults diagnosed with ADHD in adulthood reported being challenged reading workplace instructions, procedures, and manuals. Because of their ADHD, some adults constantly interrupted the conversations of friends, and friends avoided socializing with them. There were some adults diagnosed with ADHD in adulthood who were diligent workers but struggled to get to work on time. Sports were used as an outlet for hyperactivity to improve physical, mental, emotional, and social well-being. Some responders were successful entrepreneurs but were still traumatized by childhood trauma stemming from undiagnosed ADHD. Unacceptance of ADHD by loved ones contributed to marital disharmony.

The quality-of-life indicators were different for the two groups (adults diagnosed with ADHD in childhood and adults diagnosed with ADHD in adulthood). Both groups experienced an uphill battle coping with obstacles that detracted from their quality of life and the quality of life of loved ones (Fullen et al., 2020). There were more obstacles to the quality of life for adults diagnosed with ADHD in adulthood than for adults diagnosed with ADHD in childhood. Not only were there more obstacles for this group, but the challenges for them had a more detrimental impact on their quality of life (Pan et al., 2019).

Recent studies (Fullen et al., 2020) have indicated that depression, anxiety, disorganization, forgetfulness, and stress are becoming more prevalent amongst adolescents and young adults. These symptoms negatively influenced the quality of life for ADHD individuals. Additionally, nearly 15% of adolescents in the United States were diagnosed with ADHD (Posner & Polanczk, 2020). To enhance the quality of life for

adolescents and adults, there are pharmaceuticals, homeopathic remedies, and dietary modifications.

Many individuals with a diagnosis of ADHD in childhood continue exhibiting symptoms as adults. For those who do not become diagnosed until they are adults, struggles with executive functioning skills are evident (Dorr & Armstrong, 2019). These struggles deteriorate their work performance. Aligned with the premise of Dorr and Armstrong (2019), Coma-Roselle et al. (2020) posited adults with ADHD might demonstrate impulsivity, forgetfulness, hyperactivity, and disorganization in their jobs. These behaviors often cause tensions with supervisors, conflicts with colleagues, and subtle coercion to seek different employment opportunities. The result is a reduction in quality of life for these adults with ADHD as well as for family members who depend on the income of adults with ADHD in the homes (Coma-Rosellé et al., 2020).

Research Question 2 was, what type of childhood experiences affected the outcomes of how adults treated ADHD? Findings showed ADHD adolescents, who were best friends in childhood, sought ADHD adults for friendships when they became adults. Parents who worked all the time contributed to the loneliness of ADHD responders. The parents contributed to the ADHD responders becoming introverts in adulthood (Harrison et al., 2019). There were mothers who showed support during the childhood of the ADHD responders. The positive support motivated the responders to want to improve themselves in adulthood (Taylor & Antshel, 2021). There were perceptions of being accident prone because of childhood experiences associated with ADHD. Positive childhood experiences existed for some responders that empowered them as adults to improve their lives. Early diagnosis of ADHD in childhood facilitated responders to

employ more learning and behavior management skills as adults.

Findings for Research Question 2 is supported by the literature. Adults with poor childhood experiences, who suffer from ADHD, have been seen to take unnecessary risks, leading to negative outcomes like accidents and car crashes (Romo et al., 2019). Undesirable childhood experiences may lead adults with ADHD to become more impulsive and not take into consideration immediate or long-term consequences. As a result, these adults might over-indulge in behaviors like smoking and drinking alcohol (Sayal et al., 2018). Individuals with undesirable childhood experiences are at risk for mental problems in adulthood including mood disorders, suicide, depression and anxiety, and risk of self-injury (Tarle et al., 2019). Many adults no longer seek treatment for ADHD, and their untreated ADHD may contribute to the adverse effects of low self-esteem, marital problems, and employment challenges (Taylor & Antshel, 2021).

Research Question 3 was, how have childhood experiences, stemming from ADHD, affected life choices in adults? Results showed supportive mothers of ADHD responders helped the responders achieve positive life choices. For instance, some ADHD responders became extremely outgoing and good communicators. ADHD shaped some responders into industrious workers who always go beyond what was required on the jobs (Lambez et al., 2020). Some ADHD responders established routines to function effectively with little reliance on meds. Other responders had a regime of regular use of meds. Some entrepreneur responders compensated for weaknesses by hiring skilled employees. ADHD responders desired stability in their future and sought partners with the same goals. The responders realized they had to help partners understand ADHD to experience sustained future stability.

Results for Research Question 3 are supported by the literature. Lambez et al. (2020) explained that some hyperactive-impulsive adults experienced difficulty taking turns, speaking out of turn, and interrupting others, and staying seated at important formal meetings. There was a proclivity to speak or act before consequences were considered (Lambe et al., 2020).

Other hyperactive-impulsive adults become excellent entrepreneurs because of their creativity, willingness to work long hours, and devotion to success (Morris et al., 2020). These strengths are assets that improve the quality of life for them, their families, and others in society. Similarly, Girard-Joyal and Gauthier (2022) reported these hyperactive-impulsive adults' strengths may include creativity, flexibility, spontaneity, and the ability to become hyper-focused. There existed the strength of spontaneity which may be viewed as impulsivity by some professionals knowledgeable of ADHD symptoms. Impulsivity is a trait helpful to successful businesspersons and entrepreneurs (Girard-Joyal & Gauthier, 2022).

Hyperactivity is a supportive trait when it comes to the devotion and endless hours of running one's own organization (Hatak et al., 2021). Recent studies (Hatak et al., 2021) indicated entrepreneurs possessed ADHD traits that enabled them to embrace their passion for creating which results in success.

Research Question 4 was, what factors determine how adults manage ADHD? Findings from the interview data showed early diagnosis of ADHD and conversations with adolescents and adults with ADHD helped with the management of ADHD. Books may be read on the topic and Internet searches, using good key search terms, conducted to locate symptoms and treatments. Also effective were ADHD life coaches.

Modifications to Grades k-12 curriculum and pedagogical approaches provided support to adults for managing their ADHD. Teachers must be aware there must be modifications of the curriculum and instruction to better accommodate ADHDs (Russell et al., 2019).

The analyzed data for Research Question 4 is supported by the literature.

Environmental factors, including low exposure to toxins, such as chemicals, at an early age and in utero may contribute to symptoms of ADHD. In addition, the mother smoking, using drugs, and alcohol while pregnant may also contributed to individuals experiencing ADHD (National Institute of Mental Health, 2020). Symptoms of ADHD appear before the age of 12 and may present themselves as early as age 3 (Riglin et al., 2022). Task avoidance may include crying, leaving their designated area, leaving the classroom, becoming disruptive, or shutting down.

Early intervention is the key to assuring children the help they need to be successful academically and socially (Girard-Joyal & Gauthier, 2022; Hare et al., 2021). Researchers explain that early diagnosis and early treatments are major factors in the management of ADHD in adulthood. During the early years of life, there is much vulnerability caused by anxiety, stress, and depression. Anxiety, stress, and depression escalate as individuals with ADHD become older, causing more difficulty in managing the symptoms of ADHD (Lovett & Harrison, 2021, Russell et al., 2019).

Meaning, Understanding, Relevancy, and Significance

Findings from the study's four research questions added meaning, relevancy, and significance to the two theories that framed the problem statement, purpose statement, and four research questions in the dissertation. The two theories are Bowen Family Systems Theory and Barkley's (2014) ADHD Theory. Results from the dissertation

extended the applicability of the tenets of the two theories to seven individuals who were diagnosed with ADHD in childhood. Additionally, the applicability was extended to the eight individuals who were diagnosed with ADHD in adulthood. Results in the dissertation extended the applicability of the tenets of the two theories to ADHD individuals' families, caregivers, and community members. Both theories provided guidance on how to make the quality of life for ADHD individuals meaningful and significant.

The Bowen Family Systems Theory (Keller & Noone, 2019) is based on the dynamics of the family regarding the personal development of the child diagnosed with ADHD. According to Bowen, the 15 individuals with ADHD in the dissertation can be supported to become significant and relevant adolescents and adults. They will be significant and relevant because they will be understood by others in their environment more completely when in the setting of a community or a family. Community and family give validity and meaning to these individuals and facilitate them to be an integral part of an accepted structure (Fullen et al., 2020). Community and family provide support and guidance for the challenges these individuals will encounter when they progress through life. Community and family help shape the quality-of-life indicators delineated in the findings of the dissertation, as well as help determine positive or negative life's choices (Curtis et al., 2020).

Principles in Barkley's (2014) ADHD theory suggest that ADHD is the lack of an individual's ability to self-regulate. Guidance from the theory plays a part in the route an individual chooses to treat the disorder of ADHD (Goh et al., 2020). Community and

family members may provide support and meaning for ADHD individuals, guided by Barkley's (2014) ADHD theory.

ADHD individuals have more meaning in their lives when guided to use research-based self-regulation activities. Self-regulation activities reduce the ill effects of ADHD behaviors and symptoms emphasized in the dissertation. Examples of these behaviors are procrastination, disorganization, and forgetfulness, self-esteem, anxiety, and anger issues. Simple, yet significant self-regulation strategies that will provide more meaning to the life's choices of ADHD individuals, when applied through the tenets of the theory, include (a) a few minutes in a quiet room away from the chaos, (b) a phone call to a friend, (c) a cup of tea, and (d) view a funny TV show (Ciesielski et al., 2020).

Implications

There are 10 implications in the study from the findings. An implication is the findings in the study will contribute to positive social change in varied ways at the school and district levels as well as the national and international levels. The positive social change relates to enhanced professional development for all stakeholders that will facilitate an improved quality of life for ADHD individuals. An enhanced quality of life is important based on the numerous challenges delineated in the findings in the study that will be encountered by many individuals (e.g., marital challenges, employment difficulties, and socialization challenges).

The second implication pertains to ADHD diagnosed individuals of all ages being more susceptible to experiencing a reduced quality of their personal and professional lives. They experience the reduced quality of their personal and professional lives because of undesirable experiences and the adverse mental, social, and physical effects of

ADHD. Consequently, there is a need for researchers and clinicians to place more emphasis on encouraging research-based approaches to increasing the quality of life in adolescents and young adults. Findings in the dissertation conveyed that during the early years, there is much vulnerability caused by anxiety, stress, and depression. Anxiety, stress, and depression escalate as individuals with ADHD become older, and there was the absence of early interventions and the use of research-based interventions (Lovett & Harrison, 2021).

The third implication is ADHD pertains to more than an American founded disorder. ADHD is a global issue, and the global rate of ADHD worldwide is 5.9% (Smith, 2017). Varying cultural and social norms play a part in the differences in ADHD diagnosis rates in countries outside of the United States (Asherson et al., 2012). Because ADHD is a global concern, it is vital that research of quality-of-life solutions are shared globally. Researchers are invited by the author of this dissertation to extend this study in collaboration with international researchers. There is importance for researchers around the globe to collaborate on ADHD research.

Next, an average of one in seven children in the United States is diagnosed with ADHD (Schwartz, 2016). There are resources available for parents and caregivers regarding various treatments such as pharmaceuticals, homeopathic remedies, and dietary modifications. However, many parents and caregivers either do not have access to this information in its entirety or have difficulty understanding which route to take when treating their children for ADHD (Fridman et al., 2017). Parents and caregivers must be guided to connect with knowledgeable support groups, welcoming support groups, and research-based resources (Leitch et al., 2019). As indicated in the findings of the

dissertations, parents and caregivers require support and resources from the local, state, and federal government agencies. More support is needed for families in low-income communities, families with no knowledge of ADHD, and families that are dysfunctional families.

The fifth implication relates to failed marriages and an increase in the number of divorces. There is a significant rate of difficulties with relationships, self-organization, planning, and mood control documented for adults with ADHD (Nakai et al., 2022). Individuals with ADHD experience impulsivity and disorganization. They experience poor emotional regulation, few positive social interactions, miscommunications, and tensions with peers and family members. Arguments and disagreements escalate leading to failed relationships (Wymbs et al., 2021). Findings from the dissertation conveyed that some spouses do not understand, nor do they accept the fact their partners' or children's ADHD symptoms require diagnosis and treatment. Left untreated, the symptoms will become exacerbated and contribute to significant future challenges for everyone in the home environment.

Next, an implication is children with ADHD who receive no treatment experience low academic achievement and behavior problems (Arnold et al., 2020). There are two types of treatments that should be considered. One type is pharmacologic therapies to include alpha-2 agonists, stimulants, antidepressants, and selective norepinephrine reuptake inhibitors (Lecky et al., 2019). Another type is nonpharmacologic therapies, such as behavioral interventions, psychosocial interventions, learning training, cognitive training therapies, parent behavior training, and biofeedback and neurofeedback (Owens et al., 2018). Other nonpharmacologic treatments involve dietary supplements, vision

training, elimination diets, and chiropractic treatment (Rucklidge et al., 2018). Behavioral therapy is recommended for children between the ages of 4 to 5 years.

Seventh, an implication is stimulants are highly effective in managing the symptoms of ADHD such as hyperactivity, impulsive behavior, and limited attention span. Stimulant therapy can be effective when used by itself or it can be combined with behavioral therapy. Stimulants are a very effective way to improve symptoms over a short span of time. As discovered in the findings of the dissertation, one college student performed well in college by reducing the intake of his stimulant to increase his creativity and taking the stimulant to prolong focus on boring lesson content. Studies showed that 70% to 80% of individuals suffering from ADHD (both children and adults) showed improvements in their symptoms as soon as they started the treatment (Buker et al., 2020).

Eighth, an implication relates to applied behavior management. Applied behavior management is the latest trend in behavior management for children with ADHD and ASD (Pfiffner & DuPaul, 2015). Applied behavior management is conducted in a one-to-one setting and usually involves a therapist working within the child's environment, to observe and redirect behaviors. Applied behavior management strategies satisfied the criteria as evidence-based practices for the management of challenging behaviors in ADHD and ASD in several studies (Fitzpatrick et al., 2016).

Ninth, as indicated in the findings in the dissertation, some segments of society are being unkind to people diagnosed with ADHD. The motivation of these segments of society comes from ignorance of afflictions. Children with ADHD are occasionally bullied and left out of social events like sports. Some children, mainstreamed in regular

education classes, feel as though they are “singled out” when they receive services in the classes. Parents are less likely to have their children treated with medication if the children or parents feel as though there is a stigma involved. Children’s self-esteem is negatively influenced with many of them choosing to become introverts (Al-Yagon et al., 2020).

The final implication is adults with ADHD may have difficulty obtaining and/or even keeping steady employment. Findings in the dissertation presented several situations where employment was jeopardized because of forgetfulness, disorganization, and an inability to socialize effectively with colleagues. ADHD can be associated with problematic family relationships and challenges socializing with peers (Klein et al., 2012). Adults suffering from ADHD have been seen to take unnecessary risks, leading to negative outcomes like accidents and car crashes (Romo et al., 2019). Individuals with ADHD are also at risk for behaviors such as gambling, overeating, and video game addiction (Posner & Polanczyk, 2020).

Recommendations for Change and Future Research Inquiry

There are 10 recommendations for change and future inquiry, and the 10 recommendations show alignment with the limitations and findings of the present study. The 10 recommendations are important to facilitate the purpose of the study. The paramount aim for these individuals is to improve their quality of life. A comprehensive understanding of experiences of adults with ADHD may reveal information that positively influences the quality of their lives (Benzing & Schmidt, 2019). Additionally, the recommendations in the dissertation are important to expand the present study and fill

the void in the literature concerning factors to improve the quality of life for individuals with ADHD (Benzing & Schmidt, 2019).

The first recommendation relates to the present study's small sample size. Participants in the study were 15 adults with ADHD, ages 18 years to 65 years. Sources for recruiting the 15 participants were adult members of CHADD, LinkedIn subscribers, Facebook, and social media. Responders were recruited using purposeful sampling and a recruitment flyer posted online. Future researchers may replicate this study with a larger participant pool. Future researchers might compare their results with the results of the present study to determine differences and similarities in findings. Further, these future researchers should ensure the large sample possess equal or nearly equal representation of ADHD individuals from different geographic regions in the United States. Additionally, for a significant contribution to the literature, participants in the large sample should possess a documented clinical diagnosis that identifies their ADHD dimension.

The second recommendation relates to the study's 10 interview questions being self-report questions. Creswell (2019) reported that sometimes responders do not accurately report their views and opinions. Responders may report what others want to hear. Responders might fear retaliation by peers, employers, or family members for the truthfulness of their responses. Some studies showed a tendency for individuals to rate themselves more positively on self-reports of impairment (Anastopoulos et al., 2021).

Third, the present study did not consider important demographic variables in the recruitment of participants. For instance, there was no consideration for the influence of variables like gender, ethnicity, and varied ADHD dimensions in the findings. Future researchers may explore the influence of the variables on the quality of life of ADHD

individuals. Researchers can explore patterns in the findings for these critical variables or endeavor to control the potential influence of the critical variables. For instance, the differential strength of associations among males and females may be important for further clarifying patterns related to the quality-of-life indicators that emerged from the interview responses in dissertation (Barkley, 2020).

The fourth recommendation pertains to the present study having a phenomenological qualitative approach. There may be benefits in designing studies with different approaches to data collection and data analysis (Merriam & Grenier, 2019). Recommendations are quantitative approaches (i.e., experimental designs) and mixed methods approaches (i.e., concurrent mixed methods design). With these varied approaches, future researchers might gather diverse types of information. Measures associated with the varied approaches might be identified that assess the presence and severity of ADHD symptoms, such as the symptoms discovered in the dissertation. Examples of the symptoms are impulsivity, hyperactivity, forgetfulness, and disorganization. The presence and severity of the symptoms may be correlated to quality of life indicators, types of treatments, and levels of family and peer support. For data collection sources, some suggested sources are records, rating scales, observation instruments, and Likert-scale surveys. All data collection tools should possess a high degree of reliability and validity or be pilot tested and critiqued by experts (Fraenkel et al., 2019).

Fifth, an interesting study is to explore the self-perception/self-esteem of individuals with ADHD, as well as how the individuals perceive actions and reactions of others in their immediate environment to the ADHD symptoms and treatments delineated

in findings from the dissertation. The other stakeholders might be peers, family members, colleagues, and employers.

Next, a worthwhile study can be a longitudinal study. The longitudinal study may be designed to examine quality of the life of ADHD individuals over 3 or more years as well as to examine social/emotional/relational difficulties. The aim of the study would be to provide broader and more reliable information for decision making and policy changes by state and federal government agencies. In one type of longitudinal study, several research questions may be designed to explore attachment styles of adults with ADHD.

A second type of longitudinal research study may be designed to explore how adults experience adjusting to receiving a diagnosis of ADHD over 3 or more years, with and without pharmacological treatments. In this second type of longitudinal study, ADHD adults might benefit greatly if there is a provision to integrate significant others in the post-diagnosis treatment. Existing research (Xue et al., 2019; Vysnianske et al., 2020) advocates the involvement of significant others in post-diagnostic interventions to promote the collaborative management of ADHD and to alleviate the difficulties of ADHD individuals, thus improving quality of life (Barkley, 2020).

Seventh, Anastopoulos et al. (2021) explained that ADHD may be viewed as a continuum of symptoms with varied severities and extensive impacts on adaptive functioning. Aligned with the premise of Anastopoulos et al. (2021), variability of presentation and severity of symptoms may be a worthwhile consideration in future research. There could be a worthwhile consideration because differences in presentation and symptoms might demonstrate different influences on interpersonal interactions and functioning in relationships for ADHD individuals.

Eighth, the present study noted several positive aspects (hyperactivity and impulsivity) of ADHD identified by adults with ADHD (Cibrian et al., 2022). Other studies might continue to investigate how positive reframing of ADHD symptomatology, along with the appropriate treatment, may support ameliorating the shame that can result from a lifetime of persistent challenges that are often invalidated. More qualitative studies (i.e., case, ethnography, and grounded theory studies) are needed to generate rich and thick descriptions of data to gain insight into the subjective experience of individuals with ADHD.

Ninth, Zang (2019) described ADHD as a chronic, lifelong medical condition with a strong neurobiological foundation. Guided by the premise of Zang (2019), more research is needed to investigate the integration of several disciplines to better understand the national and international impact of ADHD. The findings of these research studies may also explore the evidence-base of non-pharmacological treatments for ADHD. The non-pharmacological treatments include expressive art and play therapies as well as mindfulness and meditation-based therapies.

Last, Zablotsky and Alford (2020) contended ADHD was an emotional journey for adults to travel after receiving the diagnosis of ADHD. The concept of an emotional journey conveys the importance of stakeholders to coordinate psychoeducation and post-diagnostic support for ADHD. Therefore, more research is needed on psychoeducation and post-diagnostic support interventions, focusing on educating family members, teachers, and others about ADHD. With the additional education and professional development, these stakeholders might better normalize ADHD experiences and reduce the associated stigmas (Zablotsky & Alford, 2020).

Limitations

Creswell (2019) posited all research studies possess limitations to include the weaknesses in the research design. The selected design in the dissertation (phenomenological qualitative research design) may be a limitation. The design does not support generalizing findings beyond the current research setting to other educational settings (Creswell, 2019). Guided by the design, the researcher confined the study's parameters to 15 ADHD participants and one semi-structured interview instrument.

A limitation is the semi-structured interviews were conducted virtually which is a limitation in the methodology. Another limitation to the methodology is identifying ADHD participants who fit the study's selection criteria (Merriam & Grenier, 2019). Recruitment of ADHD participants was limited by time and the number of potential responders who viewed the online recruitment flyer. A significant limitation was an inability to confirm responders' diagnosis for ADHD.

A limitation may be the distractibility of the 15 participants interviewed in the dissertation. Levkovich and Elyoseph (2021) explained that a challenge of interviewing individuals diagnosed with ADHD was one of the characteristics of the disorder, distractibility. A final limitation relates to the difficulty in collecting comprehensive data regarding childhood memories of the subjects participating in the study. According to Ottenstein and Lischetzke (2019), when interviewees are recalling emotions from their past, their perspectives may often be biased.

Conclusions and Reflections

The purpose of the study was to examine the experiences and beliefs of 15 participants regarding the management of ADHD and the impact that experiences may or

may not have regarding the quality of life during adulthood. The purpose was addressed with the findings from Research Questions 1-4. These results are expected to make a significant contribution to scholarly literature. Further, the findings will be used to provide professional development to stakeholders in the environment of ADHD individuals. The stakeholders share responsibility for the ADHD individuals' quality of life.

Reflecting on the dissertation process, the study has been a rigorous and satisfying learning experience as a practitioner, a mother, a wife, and a human. The researcher learned countless lessons along the way, and she is elated that her study will contribute to the quality of life of ADHDs. The researcher is also thrilled that the study will enhance the knowledge of learned professionals on how to provide better support and understand the challenges of ADHDs and their families.

ADHD may impair social interactions as well as hinder academic accomplishments and work productivity. Findings in the dissertation suggest stakeholders must be reminded that ADHD individuals respond differently to different therapies.

Results in the dissertation convey ADHD comes with a plethora of challenges that adolescents and adults experience daily. In childhood and in adulthood, these challenges may negatively influence interpersonal interactions and communications with peers, family members, and colleagues. A critical finding in the dissertation, useful to all stakeholders, is for the stakeholders to consider individual differences and individual experiences. The reason is ADHD is not a one-size-fits-all diagnosis. There are differences in presentation and differences in challenges coping with symptoms experienced by everyone with ADHD.

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Appendix A
Research Protocol

Interview Questions	Research Question 1: What differences, if any, are there in the quality of life between those diagnosed with ADHD in childhood and those diagnosed with ADHD in adulthood?	Research Question 2: What type of childhood experiences affect the outcome of how adults treat ADHD?	Research Question 3: How have childhood experiences stemming from ADHD affected life choices in adults?	Research Question 4. What factors determine how an adult manages their ADHD?
IQ1 Have you ever had an adverse effect from medication used to treat your ADHD?	X			
IQ2 Explain your family support system growing up?		X	X	
IQ3 How has your ADHD affected your social life?	X	X	X	
IQ4 How has your ADHD affected your academic and professional life?	X	X	X	
IQ5 Do you currently feel as though you are managing your				X

ADHD effectively?				
IQ6 How do you currently manage your ADHD?			X	X
IQ7 Please explain your current family dynamics?	X	X	X	
IQ8 Looking back, do you think you experienced any trauma in your past that could have an impact on your current quality of living?	X	X	X	X
IQ9 If you had the power to change anything in your past that was associated with your ADHD, what would it be?	X	X	X	X
IQ10 How old were you when you were diagnosed with ADHD?	X			

Appendix B
Recruitment Flyer

**NOVA
SOUTHEASTERN
UNIVERSITY
Research Study**

Attention Deficit
Hyperactivity Disorder:
Lived Experiences of Adults
Diagnosed with ADHD

The purpose of this study is to understand the lived experiences of individuals diagnosed with attention deficit hyperactivity disorder (ADHD) in childhood, as well as the experiences of those not identified until adulthood regarding their attempts to manage the symptoms of ADHD.

A better understanding of experiences of adults with ADHD may yield information that may have an impact on the quality of the lives of those diagnosed with this disorder.

You are eligible for this study if:

- You have been diagnosed with ADHD at any time in your life.
- You are between the ages of 18 and 65 years old.
- You can commit to a 30-minute session held via Zoom to answer 10 interview questions (20 minutes) and review your responses (10 minutes) with the researcher.
- You can speak English fluently.

This study will be held remotely via ZOOM. Video mode during interview is optional. No compensation will be provided for participation in this study.

Want to know more?

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