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THE EFFECTS OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER ON THE FAMILY

A MASTER'S THESIS

SUBMITTED TO THE FACULTY

OF BETHEL UNIVERSITY

BY

KIMBERLY M. BECKER

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THE EFFECTS OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER ON THE FAMILY

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APPROVED

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Abstract

ADHD affects not only the individual diagnosed with the disorder, but the individual's family and surrounding community. The focus of this research was to gain an understanding of the way ADHD affects the individual and the various family members as well as to offer coping strategies and interventions. This effort to understand ADHD and its effects on the family enables educators to offer strategies to counteract negative impact on future family functioning and mental health.

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CHAPTER I: INTRODUCTION

According to Coghill et al. (2008), attention-deficit/hyperactivity disorder (ADHD) "is one of the most common neurobehavioral disorders of childhood." ADHD is described as developmentally inappropriate levels of inattention, hyperactivity, and impulsivity, which often lead to difficulties in academics, relationships, and negative behaviors both within and outside of the home. ADHD often continues into adulthood, causing complications with mental illness, academics, employment, relationships, and emotional/self-esteem. While ADHD affects the individual, it also impacts the quality of life of the entire family system. Families with ADHD were shown to have less cohesiveness, more conflict, depression, and higher rates of divorce and separation. Parental productivity at work and financial issues were also reported as problems experienced by parents of children with ADHD.

Currently, ADHD research has been centered around symptom management with little pertaining to a child's day-to-day activities, behavior, and family relationships. Not only as a special education teacher, but as a family member with personal ADHD experience, I have searched for information to assist my students as well as my family members with the hope of not only understanding the disability but finding ways to cope and succeed in all aspects of life. Building an understanding of the disability and developing interventions and methods of assistance are necessities to treat the whole child.

These factors, along with my new teaching position in special education and many students on my caseload with ADHD, lead me to investigate how ADHD affects the family and the possible interventions available to give families assistance. As a special education teacher, I want to use my experiences with ADHD, as well as those of my family, to help children and their families cope with its affects and figure out ways I, and other educators, can help.

ADHD Statistics

A review of ADHD statistics sheds light on its diagnosis, prevalence, possible coexisting disorders, financial factors, and treatment. ADHD may be difficult to diagnose due to its symptoms being very similar to typical child behavior (Holland and Riley, 2018). Holland and Riley provide the following facts:

> During their lifetimes, 13 percent of men and 4.2 percent of women will be diagnosed with ADHD. The average age of ADHD diagnosis is seven years old with symptoms of ADHD typically appearing between the ages of three and six. ADHD is not just a childhood disorder. About four percent of American adults over the age of 18 deal have diagnosed ADHD (“5 fast facts,” para. 1).

Children living in English-speaking households are four times more likely to be diagnosed with ADHD than children living in households where English is the second language (Holland and Riley, 2018). Children living in households with parents who earn less than two times the federal poverty level have a higher risk of being diagnosed with ADHD than those from higher-income families. ADHD affects children of all races and ages, with more severe symptoms creating an earlier diagnosis (2018).

There are varying details with regard to the rise of ADHD in American children. The American Psychiatric Association (APA, 2013) states five percent of children in the United States between the ages of 4 and 17 years have diagnosed ADHD. The Center for Disease Control and Prevention (CDC, 2018) reports 11 percent, illustrating a 42% increase between the years of 2003 and 2011 (Holland and Riley, 2018). Geographically, the Midwest region of the

United States shows the highest rates of ADHD with the lowest rates in the western region (2018).

While ADHD does not increase the risk for other conditions or diseases, a variety of coexisting conditions may affect individuals' ability to cope in social situations such as school or work (Holland and Riley, 2018). According to the CDC (2018), two out of three children with ADHD had at least one other mental, emotional, or behavioral disorder. Other conditions may include learning disabilities, anxiety disorders, depression, bipolar disorder, Tourette's syndrome, substance abuse, bed-wetting problems, or sleep disorders (Holland and Riley, 2018).

Finance is also a factor in the form of medical costs for treatment plans and medication when one is diagnosed with ADHD. The CDC (2018) reports approximately 3 in 4 children with ADHD aged 2-5 years received ADHD medication with fewer than half receiving any psychological services. Children ages 2-5 years with ADHD were twice as likely to receive clinical care when covered by Medicaid than children of a similar age covered by commercial employer sponsored insurance (2018). Further costs associated with ADHD may include the cost of education, possible loss of occupation, and possible juvenile justice costs (Holland and Riley, 2108).

The Center for Disease Control and Prevention (CDC, 2018) indicates many studies have been conducted showing an increase in diagnosis, but not in treatment of ADHD. The CDC (2018) also states the American Academy of Pediatrics (AAP) recommends both behavior therapy and medication in combination for treatment of children ages six years and older and behavior therapy initially for children under six years of age. Of the children surveyed by the

CDC (2018), about 23% were not receiving medication or other health therapy to treat diagnosed ADHD (2018).

Conceptual Framework

It is crucial to understand the family as a unit, particularly families including parents and children with ADHD (Dawson, Sacchetti, Egan, and Wymbs (2017). Tied to this understanding of the family as a unit is the environment of the family and the impact it has on the growth, appearance, and effect of ADHD (Livingstone et al. (2016).

Roughly 40% of children with ADHD have at least one parent with ADHD (Takeda et al., 2010). Since both parents could share similar behavioral characteristics and be drawn to each other, it is also important to consider they may each have ADHD (Wymbs and Molina, 2015).

Within the family unit, parent behavior influences child behavior and child behavior influences parenting practices as well as communication between parents (Dawson, Sacchetti, Egan, and Wymbs, 2017). Parents with ADHD often exhibit more negative parenting practices (Johnston, Mash, Miller, and Ninowski, 2012). The majority of children (greater than 50%) in the United States likely reside in a home with two parents (Lingineni et al., 2012). Therefore, to gain greater insight into the effects of ADHD on the family, it is important to take both parents' and the child's experiences into consideration.

Interventions for ADHD

Although there is no current cure for ADHD, there are several different options to manage symptoms; medication and behavioral intervention are the most common (Lessard, Normandeau, and Robaey, 2016). However, research suggests a multimodal approach, multiple methods of treatment working together, to help a child with ADHD manage the symptoms. Psychosocial strategies address performance and skills deficits. Evidence-based psychosocial

interventions (EBI) target both performance and skills deficits to address educational needs of children with ADHD (Eiraldi, Mautone, and Power, 2012).

Parent training is often recommended as the first line of treatment for ADHD in young children (Tarver, Daley, and Sayal, 2014). The parent training often consists of the use of social strategies to increase compliant and decrease non-compliant child behavior. In light of parents of children with ADHD reporting more stress, less support, and less satisfaction than parents of children without ADHD, mindfulness interventions targeted toward the entire family as a unit have been shown to be beneficial (Lo et al., 2017).

Classroom-based interventions are similar to parenting interventions and often include behavior strategies for the teacher targeted to improve the ADHD-child's classroom behavior. Interventions to address skills deficits in the classroom may include direct instruction and repeated practice as well as shortened tasks due to the ADHD-child's attention difficulties (Tarver, Daley, and Sayal, 2014).

Child psychological therapy is another intervention option and may include social skills training, anger management and problem solving (Tarver, Daley, and Sayal, 2014). This form of treatment may be most effective when combined with other treatments, especially during the preschool years, pending further research (2014).

Diet is another intervention and often involves restricting food coloring and using omega-3 supplements. However, research is limited and data obtained may be inconclusive. Restrictive diets may also prove to be difficult and expensive to maintain as well (Tarver, Daley, and Sayal, 2014).

Definitions of Common Terms

Following is a review of words and phrases found in Chapter II of this paper. According to the American Psychiatric Association (2013), *ADHD*, attention-deficit/hyperactivity disorder, is one of the most common mental disorders affecting both children and adults. Symptoms may include severe lack of attention, inappropriate levels of activity, and impulsive behavior (2013). The American Psychiatric Association's (APA) Diagnostic and Statistical Manual (DSM-V) states patients must have experienced a minimum of six symptoms of inattention or six symptoms of hyperactivity/impulsivity. The manual also states there are three subtypes of ADHD: *hyperactive/impulsive* (e.g. talking excessively, fidgeting), *inattentive* (e.g. failure to sustain attention in tasks or not listening when spoken to), and combined. ADHD is often *comorbid,* or coexisting, with other psychiatric conditions or functional impairments (Tarver et al., 2014). These comorbid challenges may include deficits in *executive functioning,* higher-order cognitive functions such as working memory, *self-regulation,* the ability to monitor oneself for error, and *motivation,* response to incentives or rewards (Tarver et al., 2014). *Emotional dysfunction* is also common in those with ADHD and may present as low levels of emotional control and be paired with *mood lability,* or the exaggerated change in mood (2014). Other challenges of ADHD may include: impaired *social skills,* skills used to interact and communicate with others verbally and nonverbally, mood disorders or *anxiety,* a feeling of worry, nervousness, or unease typically about an event with an uncertain outcome, academic difficulties, *disruptive behaviors* such as *oppositional defiant disorder* (ODD) or *conduct disorder* (CD), tic disorders (e.g. *Tourette syndrome* [TS]), substance abuse, and poor motor coordination (2014). Though ADHD is considered one of the most heritable psychiatric conditions, no single genetic risk factor has been identified (2014). The high rate of heritability of ADHD makes it possible that

one or both parents of a child with ADHD, *parental ADHD,* may also have diagnosed ADHD (2014).

To assist in alleviating stress, feelings of parental incompetence, and strained familial relationships, *interventions*, coping strategies and mechanisms to improve family functioning, are necessary. *Cognitive behavioral therapy interventions* (CBT) is a short-term, goal-oriented, traditional form of psychotherapy involving positive self-talk and interventions from parents and teachers aiming to change negative patterns of thinking (Power et al., 2012). *Family School Success* (FSS; 2012) is a psychosocial intervention for children with ADHD to improve behavior and academic functioning at home and at school. *Coping with ADHD through Relationships and Education* (CARE; 2012) is another intervention used to educate and support parents about ADHD to assist with ways to cope with their child's behaviors and challenges. Another approach to intervention is *mindfulness,* or paying attention nonjudgmentally to the present moment (Kabat-Zinn, 2015). *Evidence-based psychosocial interventions* (EBI) is a form of therapy used to help an individual reintegrate into society in a healthy way, often used successfully in the treatment of ADHD. School-wide supports such as *Response to Intervention* (RTI), *Effective Behavior Supports* (EBS) or *School-wide Positive Behavior Support* (PBIS) have been found to be effective in reducing behavior problems (Eiraldi, Mautone, & Power, 2012).

This paper will examine the effects ADHD has on the family unit. It will explore the effects ADHD has on a family when one or more members are diagnosed with ADHD and/or other disorders. ADHD symptoms and associated behavior difficulties will be reviewed to determine if there is increased stress and strain on all family members, leading to disruption within the family unit. Lastly, it will determine what interventions or resources are available to aid in the reduction of stress and strain ADHD may cause family members.

The over-arching question of this thesis is: “In what ways are family dynamics affected surrounding the child diagnosed with ADHD, the child’s parents, and the child’s siblings?” This question is subdivided into the two following questions:

1. When one or more members of a family have diagnosed ADHD, how does this affect other family members?
2. What interventions and resources exist to support families with one or more members diagnosed with ADHD?

CHAPTER II: LITERATURE REVIEW

According to the Centers for Disease and Control Prevention (CDC, 2018), over 11% of children and approximately 5% of adults in the United States have attention-deficit/hyperactivity disorder (ADHD). ADHD is categorized by attention deficits, hyperactivity, or impulsiveness and may occur in combination with other disorders such as depression, anxiety, or sleep, which may contribute to problems in relationships, parenting, academics, social interactions, holding a job, driving, overeating, or adhering to the law. ADHD may affect not only the child, but also the family and community surrounding the child.

To locate literature for this thesis, searches were conducted using CLIC, an online search engine which shares access to multiple online data bases including EBSCO Megafile and Academic Search Premier. The reviews of predominately empirical research were conducted for publications from 2005 to 2019. Meta-analyses, government agencies, and websites, were consulted to a lesser degree.

A multitude of studies were available on this topic including statistics on ADHD, effect of ADHD on the life of an individual, parenting stress in families with ADHD, family functioning with ADHD, discipline in families with ADHD, sibling relationships among children with ADHD, and the effects of parent training on parenting stress and sense of competence. The search was adjusted by reviewing empirical articles focusing on parent diagnosis of ADHD, parenting styles of families with ADHD, effects of ADHD on family relationships, and coping strategies/interventions to help families with ADHD. This chapter is structured to review the literature of ADHD and its effects on family relationships, parenting practices, and possible family supports and interventions. For the purpose of this paper, the literature reviewed is based on family relationships from the point of view of parents, the ADHD-affected child, and siblings.

The final area analyzes various coping strategies and interventions to assist families affected by ADHD.

The Impact of ADHD on Family Relationships

Family dynamics

ADHD impacts not only the child, but also parents, siblings, and the entire family as a unit (Harpin, 2005). The author states the effects of ADHD on the child and their families changes throughout their lives, often continuing into adulthood, where it may cause personal as well as professional problems. ADHD may also cause an increase in the cost of healthcare for individuals diagnosed as well as their families. When determining treatment of ADHD, one should consider the daily impact of ADHD on the child and the child's family as well the impact through each stage of the child's life (2005).

The associated symptoms and behaviors of the disorder may impact not only the ADHD-child's life but also cause dysfunction within the child's family and in the community as well (Riley et al., 2006, p. 1/73). The combined financial burden along with the stress and strain experienced by parents of children with ADHD affect the child's success in school, with their peers, and with the services and treatment they receive.

As more is learned about the disorder and as children's behavior is expected to be controlled at home and at school, the demands on the family increase, creating stress and often financial difficulties. Parents are often coping with the child's behavior and possible learning problems as well as managing medication. Combined, these issues impact daily family life, schedules, routines, mental health, and finances. The effects of ADHD may especially affect parenting styles. Results of a quantitative study by Munoz-Silva, Lago-Urbano, and Sanchez-Garcia (2017) showed parenting style indirectly associated with a child's ADHD, but directly

related to the ADHD-child's behavior problems. The behavior problems, rather than the ADHD symptoms, negatively impacted the parental relationship, social life, attitudes, and feelings toward their children. ADHD symptoms were more associated with parents' tendency to be more permissive and indulgent. Munoz-Silva et al. (2017) deduced the differences in parenting styles were possibly associated with the parents' differing views regarding child rearing or the desire to control their children in public.

Parenting practices

Raising a child with ADHD can be challenging for parents. When at least one parent in a family with an ADHD-child also has diagnosed ADHD, it can be even more challenging. Johnston, Mash, Miller, and Ninowski (2012) state adults with ADHD show difficulty in occupational, academic, and interpersonal relationships. Within the family, adults with ADHD lack skills necessary to maintain healthy relationships with spouses and children.

A quantitative mega-analysis by Park, Hudec, and Johnston (2017) examined associations between ADHD symptoms in parents and parenting behaviors across 32 studies. Results determined parental ADHD symptoms were associated with more rigid and lenient parenting behaviors. It also suggested there were more similarities than differences between parenting behaviors and the inattention and hyperactive/impulsivity symptoms of ADHD.

In a study by Takeda et al. (2010), 40% of children with ADHD have one or both parents also with ADHD. Their research suggested both parents' ADHD symptoms contributed to their children's risk for ADHD, with a father's ADHD symptoms significantly affecting his child's ADHD symptoms whereas a mother's ADHD symptom severity was not significantly related. However, in regard to the severity of inattention, the effects of the mother's and the father's ADHD symptoms were equal in relation to the child's ADHD symptoms. They found the

hyperactive-impulsive subtype of ADHD was highest in children who did not have either parent with ADHD. When fathers or both parents had ADHD, the incidence of children with combined ADHD subtypes tended to be higher, which suggested fathers' ADHD symptoms were large contributors to inattentive subtype ADHD in their children.

A qualitative study in by Wymbs et al. (2016) investigated whether child ADHD/ODD behavior and parent ADHD or depressive symptoms predicted the quality of parenting and conflict between parents. They randomly assigned 90 parent couples, 51 of whom had ADHD-diagnosed children, to interact with a 9-12 year-old male child with either ADHD/ODD behavior or typical behavior. Results showed when both parents had ADHD symptoms, communication and interaction were more positive when they interacted with a child with ADHD. When these same parents interacted with a child exhibiting typical behavior, communication and parenting interactions were less positive. They attribute their surprising findings to the reliance on self-reporting by the parents versus observer reporting. They deduced parental mental health is important to consider when treating ADHD-children within a family.

According to Johnston, Mash, Miller, and Ninowski (2012), "there are many opportunities for parental ADHD to impact a child's life" (p. 217, para 2). Their research defines three challenges associated with ADHD – cognitive (working memory, planning, inhibition control), self-regulation (ability to self-monitor and regulate behavior), and motivation (response to rewards). These challenges affect parenting and relationships within the family. When parents lack skills due to ADHD, such as self-regulation, they are less able to assist their children in developing these skills. This lack of skills may also increase the ADHD symptoms in their children leading to additional disorders such as oppositional disorder (ODD). The ADHD symptoms of the parent and child may be similar, thus inhibiting the parent from viewing the

behaviors as detrimental such as moving at a fast pace or the ability to administer ADHD treatment. They conclude parental ADHD symptoms and deficits are an important consideration when creating an environment with early interventions for a child with ADHD.

Few studies examine ADHD inattention and hyperactivity in individual parents. In an effort to provide insight into family relationships and difficulties with ADHD, Williamson, Johnston, Noyes, Stewart, and Weiss (2016) examined negative parenting practices and parental disagreements in relation to ADHD in fathers and mothers both individually and as a couple. Since one of the largest problems in marriage is child rearing, the study focused on the disagreements between the couple on parenting issues. Inattention symptoms in fathers were found to be predictors of parenting difficulties in both parents of ADHD children. Mothers' inattention symptoms were found to have a negative effect on parenting ADHD children only when fathers also had elevated levels of inattention. Parenting difficulties for both partners were found to be most pronounced when hyperactivity-impulsivity symptoms were higher in fathers than in mothers. When the child's externalizing behavior and the mother's depression and hostility were controlled, results remained the same. However, depression in the father was found to reduce the magnitude of some of these interactions. Results emphasize the important connection between various ADHD symptoms in the mother and the father and parenting roles defined by gender. Their findings strongly recommend consideration of each parent's ADHD symptoms and the severity of the symptoms in further studies pertaining to parenting.

Parents of children with ADHD often have elevated ADHD symptoms as well as symptoms of depression or other disorders, which may increase poor parenting practices and stressed family relationships (Wymbs et al., 2016). A meta-analysis by Deater-Deckard (2017) researched the effect between parental ADHD and child ADHD and the differences in parent-

child relationships. Referenced in this meta-analysis were findings by Moroney, Tung, Brammer, Peris, and Lee, 2016 suggesting ADHD symptoms in parents are associated with stress and marital problems as well as negative consequences for their children such as oppositional defiant disorder (ODD), anxiety, and depression (p. 457). Studies by Auerbach, Zilberman-Hayun, Atzaba-Poria, and Berger (2016) indicated mothers' ADHD contributed to more negativity in the family when the ADHD-child had hyperactive-impulsive and inattentive subtype (p. 415).

A study by Wymbs, Wymbs, and Dawson (2014) determined elevated ADHD symptoms in parents did not predict parenting practices or communication between spouses. They deduced the child's ADHD symptoms had more of an effect on parenting. According to this study, an ADHD-child's behavior and a parent's ADHD symptoms both contributed to negative parenting practices, as reported by the non-ADHD spouse. They found ADHD-parents, regardless of their gender, were equally at risk to use negative parenting practices. When parenting alone, fathers with ADHD symptoms showed fewer negative parenting practices. However, when parenting with a spouse, both parents exhibited more negative parenting practices. They deduced this could be due to one parent trying to show more effective parenting behavior than the other when they are parenting together. When the partner of the ADHD-parent viewed the partner's ADHD symptoms as high, this parent reported more negative parenting behavior, which resulted in a negative reaction from the ADHD-partner. Interestingly, this study showed parents with inattentive-ADHD used more negative parenting practices and communication than the hyperactive/impulsive subtype of ADHD. They proposed it was due to poor executive functions skills such as organization and behavior regulation, which were viewed negatively by their non-ADHD partners. Overall, ADHD symptoms as well as accompanying disorders in both the

parents and the child play a part in negative parenting behavior due to deficits in executive function and self-regulation.

The Parent-to-Child relationship

As stated by Pour and Fatemeh Kasaei (2013), attention-deficit/hyperactivity disorder affects many aspects in the lives of the child, parents, and siblings, which in turn disturbs the functioning of the entire family. When evaluating family functioning in parents of children with ADHD, the authors found significant differences in families of children with ADHD. Results of quantitative studies comparing thirty families with and without ADHD showed families of children with ADHD had poorer problem solving, communication, affective responsiveness, behavioral control, affective involvement, and general function. Children with ADHD impact family functioning due to parental difficulties with discipline practices. These parental difficulties may lead to relationship problems between the parents and marriage conflict.

The effects of ADHD on relationship/marital quality were studied by Wymbs and Pelham (2010). Results of the study showed parents of children with both ADHD and another comorbid behavior such as ODD (oppositional defiant disorder) or CD (conduct disorder) were “5 times more likely to communicate negatively with each other” (2010, p. 373), especially in child rearing practices, than parents of children without ADHD. They state the reason could be attributed to increased environmental stress due to disruptive child behavior. This negative communication between parents indicated disruptive child behavior as a cause of marital conflict, especially in relation to communication and parenting practices.

Wymbs and Pelham conducted another study, this time with Molina, and Gnagy (2008), which addressed the lack of research involving parents of adolescents with ADHD and the measurement of marital conflict. This study compared reports by adolescents without ADHD and

with ADHD or a combination of ADHD and other disorders (CD, ODD) and by mothers regarding relationship satisfaction and aggressive behavior during conflict between parents. Parents of children with ADHD, especially ADHD in combination with ODD or CD, reported higher levels of stress and more negative responses to their child's behavior often resulting in lower relationship satisfaction, more conflict, and more negative parenting practices. Adolescents with ADHD and corresponding conduct problems reported parental conflict occurred more often and was less often resolved, indicating these higher levels of parental conflict only occur in families of children with ADHD along with coinciding conduct problems. These same adolescents reported witnessing more parental conflict than adolescents with only ADHD or ADHD along with ODD. These findings brought up two issues regarding the connection of ADHD in combination with ODD or CD and conflict between parents of ADHD-children. One, CD along with ADHD is known to be a stressor in families of ADHD-children, which could be contributing to parental conflict as viewed by adolescents. Two, ADHD-children who also have CD tend to show more inattentive and hyperactive-impulsive behavior than children with ADHD only or without ADHD. The behavior problems and hyperactivity of the children with ADHD/CD could exacerbate parental conflict versus decreasing parents' ability to resolve conflict. The authors conclude more research is needed to determine the degree of conflict between parents of adolescents with ADHD.

A 2011 study by Theule, Wiener, Rogers, and Marton examined ADHD symptoms of the parent and predictors of parenting stress in relation to child ADHD symptoms after controlling the effects of ADHD-influenced factors in the child. They found parental-ADHD symptoms were the strongest predictor of parental stress. ADHD symptoms including inattention, impulsivity, and executive functioning difficulties contributed to stress in a variety of ways. The

ADHD symptoms lending to parenting stress included, but were not limited to, difficulty remembering appointments, forgetting to distribute medication, or not following through with consequences in parenting decisions. Given parental-ADHD and depression are intertwined, a large predictor of parenting stress was found to be depression. Teacher reports were found to be different than parent reports of child ADHD symptoms, which the authors attributed to teachers being neutral reporters. The parent and teacher reports differed in that parents reported child oppositionality (the refusal to conform to the ordinary requirements of authority and a willful contrariness – stubbornness, argumentativeness, tantrum, noncompliance, defiance) was a strong factor in parental stress (when parenting demands exceed the expected and actual resources available to the parents that permit them to succeed in the role of the parent). This suggests parental stress heightens parents' sensitivity to child oppositionality or that ADHD-children behave differently at school. At home, oppositionality may occur due to inconsistent parenting practices due to parental-ADHD symptoms. Age and education of the parent as well as gender of the ADHD-child were unrelated to parental stress whereas social support, marital status, and child ADHD symptoms were more closely related to parental stress. However, when parental ADHD symptoms were added to the analysis, child ADHD symptoms were not shown to be significant predictors of parenting stress. Therefore, when stress in the parent is reduced with treatment of parental ADHD the parents' ability to implement interventions may then improve the functioning of an ADHD-child.

A mixed-methods research study to evaluate parental stress and negative parenting strategies was executed by Miranda, Grau, Rosel, and Melia (2009). They hypothesized negative parenting strategies, often in the form of criticism, hostility, or lack of warmth, could lead to the development of conduct disorder or oppositional defiant disorder in addition to ADHD in the

child. The results of the study showed younger ADHD-children with combined-type ADHD (CD or ODD) were more challenging to parent and caused the greatest disturbances to family dynamics than inattentive-type ADHD-children. This was due to the likelihood of ADHD-combined type children to have higher impulsivity, lower ability to adapt to environmental changes, and moodiness. These factors were shown to cause greater health problems and conflict between parents. Lower economic status as well as lower educational levels were shown to lead to more stress and higher negative parenting strategies. Therefore, in families with low economic status and with low educational levels, a combination treatment of medication and training in behavior modification was shown to work most effectively. Parents of children with ADHD often view themselves as inadequate parents with a low quality of life, which often leads to stress and depression. Due to the symptoms of ADHD, these parents often view their ADHD-children as having more difficulties adjusting to the environment and meeting their parenting expectations, leading to more parenting stress and negative discipline styles.

The objective of a study by Agha, Zammit, Thapar, and Langley (2013) was to investigate the relationship between parent-ADHD, child-ADHD, and family functioning. Adults with ADHD show difficulties in academics, holding onto jobs, and in relationships. Results of this study showed when the mother in a family had ADHD symptoms, there were more difficulties in the family relationships. The authors surmised this was due to mothers being the primary caregivers and primarily being responsible for the day-to-day activities of the family. However, mothers were shown to be more affectionate with their children when the father had ADHD, which may indicate mothers living with a spouse with ADHD were more empathetic to their child's symptoms of ADHD. When the mother had ADHD, the father was more critical and less tolerant. Mothers with ADHD tended to attribute more blame to the children while fathers

did not. Overall, their findings showed families had more adverse environments when parents had ADHD, especially when the ADHD symptoms belonged to the mother.

A parent survey given by Coghill et al. (2008) assessed daily life for children with ADHD and their families. Parents reported ADHD had a negative impact on the child, their family, school, peer relationships, and family relationships. The parents reported the three relationships most-impacted by ADHD included child-parent (72%), child-sibling (64%), and child-other children (54%). Although all times of the day are a challenge for children with ADHD, the late afternoon/early evenings were the most problematic. During this time, parents reported a peak in ADHD-symptomatic behaviors. These behaviors affected activities such as homework, play time with other children, and interactions with others (child-parent, child-sibling, and child-other children). The study determined the importance of ADHD treatment and behavioral interventions throughout the child's entire day to assist maximum achievement in all areas of the child's life.

The impact of ADHD on the child

A meta-analysis of many studies done to compare the effects of ADHD on a child throughout the stages of his/her life was written by Harpin (2005). The meta-analysis covered a child's life from preschool to adulthood, taking into consideration the combination of ADHD with other disorders, problems with treatment, and healthcare. Harpin reports, once a child is diagnosed with ADHD, a process begins. Family support and information help reduce stress and assist the child and other family members through the process. An individual with ADHD should be treated as a whole person, including the family as a unit.

In preschool, children with ADHD may play differently (2005). Disorders such as developmental delay, defiant behavior, or a lack in social skills may be present. It is imperative

to offer guidance and assistance at this time to improve the way parents interact with the child and to reduce parents' stress.

A child with ADHD in primary school may have difficulties in academics, social skills, or self-confidence. This may affect the child at school as well as within the family. The child's behaviors may impact the family and create stress as well as feelings of inadequacy in the child. This could lead to other behavior issues, strained relationships between parents and children, spouses, siblings, and parents and siblings. When given a non-stimulant medication, an increase in a child's feelings of self-confidence, social skills, and family interactions may occur (2005).

In adolescence, a child with ADHD may show a decrease in overactive behaviors while concurrently showing an increase in ability to sustain attention, control impulses, and remain calm. A decreased feeling of confidence and self-worth may result and lead to behavior changes. The child may become confrontational or have difficulty relating to peers which could lead to stress within the family (2005).

Challenges for individuals with ADHD may continue into adulthood. Adults with ADHD may encounter problems holding a job, sustaining a relationship, or becoming addicted to drugs or alcohol. Adults with ADHD have a high chance of bearing a child with ADHD, creating a cyclical problem (2005).

Treatment for ADHD involves medications and its effect on the child's growth as well as its potential lead to drug addiction or substance abuse. Close monitoring of the child taking medication for ADHD is imperative. Family support is necessary due to the difficulties and potential problems of the child with ADHD as he/she moves through the stages of life. The cost of healthcare is another consideration in the treatment of ADHD. Without treatment, individuals with ADHD are at risk to injury due to the complications of ADHD and/or the combination of

other disorders. With treatment, individuals with ADHD may become addicted to drugs or have a substance abuse problem. Both could involve medical treatment or involvement. Treatment of ADHD is encouraged due to the healthcare costs involved (2005).

ADHD does affect people throughout their lives and in all aspects of their lives. The disorder does not reliably indicate a person's achievements in school or in careers. Treatment for ADHD is mainly short-term, focusing on a child's school day, thereby affecting the child's home life both before and after school when the medication wears off. The author concludes children and their families should be informed and given interventions to try as part of the treatment of the whole child. This treatment needs to cross over into medications and either reluctance to use it or over-prescription of it. ADHD has been viewed in the media negatively, which adds to the negative effects on the whole child (2005).

The impact of ADHD on siblings

Due to the large scope of the impact of ADHD, there are likely connections to the health and happiness of those with whom they tend to spend the most time, notably siblings (Peasgood et al., 2016). However, there is little research regarding the effects of ADHD on siblings within or outside of the family. In their 2016 study, Peasgood et al. referenced a 1999 qualitative study by Kendall which found siblings were impacted by feelings of victimization and caretaking, as well as anxiety and sorrow.

Sibling relationships provide important socialization for children (Mikami and Pfiffner, 2008). Sibling relationships require conflict negotiation similar to those necessary in peer relationships. Sibling relationships have both positive as well as negative influences on development. Positive sibling relationships often predict less mental health disorders and

improved social skills (2008). Negative influences from siblings could include drug or alcohol use (2008).

The non-ADHD sibling(s). Peasgood et al. (2016) discovered the degree of malcontent siblings have with family and with overall life is similar to that of their ADHD-sibling. This suggests a lack of needs being met for both the ADHD and non-ADHD sibling. The authors speculate one reason for the non-ADHD sibling's unhappiness could be the result of bullying. They found both ADHD and non-ADHD siblings reported higher levels of bullying compared to a control group, with both non-ADHD and ADHD siblings being the victims and victimizers of bullying. Name calling and taking of belongings were the two most frequently reported annoyances for non-ADHD siblings. The authors suggest interventions targeting sibling bullying for families of children with ADHD.

A qualitative study by King, Alexander, and Seabi (2016) set out to determine the impact of ADHD on the family from the viewpoint of a non-ADHD sibling. From this viewpoint, they studied the experiences, the perception of the sibling relationship, and the parenting discipline issues in the home. Non-ADHD siblings reported a lack of attention from parents such as not being given the same opportunity for a tutor or having to leave an activity when the ADHD-child was tired or bored. Non-ADHD siblings also reported feelings of rejection due to attention and assistance being focused on the ADHD-sibling. The main concern expressed by non-ADHD siblings was a difference in disciplinary actions between them and their ADHD sibling. The non-ADHD sibling viewed the ADHD-sibling as being able to do things the non-ADHD sibling was never allowed or receiving fewer consequences for bad behavior such as homework or household jobs than the non-ADHD sibling. Lastly, non-ADHD siblings reported parental expectations of

them to care for their ADHD-sibling by playing with, supervising, giving medication, or helping them with homework.

Mikami and Pfiffner (2008) set out to investigate the quality of sibling relationships among children with and without ADHD as well as ADHD combined with other disorders. They found higher conflict in sibling relationships involving ADHD. However, when ADHD was combined with other disorders, warmth or closeness was dependent upon the combined disorder being external or internal. Internal comorbid disorders showed lower warmth or closeness between siblings. The authors conclude by noting the importance of studying the interactions between parents, peers, and siblings and the effects in the development of ADHD-children into adolescence and adulthood. They recommend further studies to investigate the moderation of these effects using sibling relationships.

Coping strategies and interventions for families with ADHD

ADHD has been associated with poor family relationships and more negative parenting practices. This could be attributed to parents of children with ADHD reporting higher levels of stress, lower levels of social support and quality of life, and less satisfaction with parenting than parents of children without ADHD (Lo et al., 2017). There are many treatment options to manage and improve the performance of children with ADHD including medications, behavior therapy, education, and use of technology to sustain treatment effects. A multimodal approach to treatment, using multiple methods of treatment together, may be beneficial as impairments can be addressed in multiple areas and there are efforts to collaborate between parents and families, school officials (Dawson, Wymbs, & Marshall, 2016).

Another intervention such as mindfulness, or the ability to pay attention nonjudgmentally to the present moment (Kabat-Zinn, 2015), is a method of training used to improve the strength

of family members by enhancing a nurturing family environment. Lo et al. (2017) studied mindfulness training based on children younger than eight years of age. They found results were positive for the ADHD-child, the parents, and the family. For the child, attention was improved and hyperactivity was decreased. For the parents, stress was reduced leading to an improved feeling of well-being and creation of a more nurturing living environment for the entire family.

Benefits of parent behavior training are often associated with improved parenting practices, improved behavior in the ADHD-child, and improved academic functioning for the ADHD-child (Lessard et al., 2016). Behavior training for parents is designed to increase positive parenting practices and decrease undesired child behaviors. In a group setting, parents are taught strategies to manage their child’s behavior by a trained professional. This training is then used by parents to develop behavior modification techniques and positive parenting practices as well as to minimize their child’s ADHD symptoms and prevent future behavior problems (2016).

Lessard, Normandeau, and Robaey (2016) set out to examine two parent training programs for families of school-aged children with ADHD. They assigned seventy-seven families either medication plus the Incredible Years (IY) parent training program, medication plus a telephone support group, or a medication only. Results suggest parents in the Incredible Years group used less harsh/negative parenting practices and more positive parenting practices following the intervention than parents in the telephone support and medication only groups.

Various treatments to support those with ADHD include stimulant medication and psychosocial interventions. When these interventions are implemented both at home and at school, a supportive, collaborative system is achieved between teachers and parents. Eiraldi, Mautone, and Power, 2012, tested evidence-based interventions (EBIs) of both performance and skills deficits of children and adolescents with ADHD. They stressed the importance of a school-

family partnership to develop interventions related to academic performance, behavior, and social skills and for interventions for families of different ethnic backgrounds. Their research concluded a combination of medication and psychosocial treatment was the most effective method to treat ADHD and related academic and social deficiencies.

Families with ADHD are often seen by clinicians as dysfunctional and the primary cause of the disorder. Cussen, Sciberras, Ukoumunne, and Efron (2011) explored the association between ADHD and the function of the family. They explored the differences in families with and without ADHD in accordance with four interrelated themes of family functioning: family quality of life, parent mental health, parenting styles, and parental relationship quality. The study consisting of questionnaires completed by the ADHD-child's parents and teachers concluded children with significant ADHD symptoms had poorer family functioning, lower parent-reported quality of life, more parental depression, anxiety and stress, less parental warmth, less consistent parenting, and more hostile parenting styles than children without ADHD. They also found more depression, anxiety, and stress in parents of ADHD-children. The authors noted the likeliness of parents displaying similar ADHD symptoms to their children, but not being diagnosed with ADHD. The authors state these often unrecognized and untreated ADHD symptoms in parents could be contributors to poor family functioning and highlight the importance of investigating parental mental health when determining how to help children with ADHD and/or other behavior difficulties. They determined there is a direct correlation between ADHD and quality of family life, specifically regarding the ways a child's behavior impacts the aforementioned areas.

The parental role in ADHD interventions

There has been limited research analyzing the impact of combined efforts by parents and teachers to assist children with ADHD (Dawson, Wymbs, and Marshall, 2016). Combined, or

multimodal, efforts of treatment may be beneficial as they enable impairments to be addressed in a variety of areas and they allow for parent-teacher collaboration (2016). To aid and enhance this cooperative effort, parental training for children with ADHD to develop strategies to increase family involvement would be beneficial.

Family School Success (FSS; Power et al. 2012), an integrative psychosocial intervention combining elements of successful interventions to improve behavioral and academic functioning in children with ADHD, was designed to improve parenting, parent involvement in education, and parent-teacher collaboration both in the home and at school. Power et al., (2012) compared FSS to an active control condition, CARE, Coping with ADHD through Relationships and Education to discover the extent adult-ADHD symptoms impacted the child and the parent. FSS was found to be an intense, collaborative intervention between the family and the school. FSS provided structured parent training and guided collaboration between the family and the school as it required implementation of behavior strategies and organization from the parents. CARE facilitated independent problem solving by the parents. When the two treatment groups of FSS and CARE were compared, the parents at risk for ADHD were able to maintain the success of treatment using the CARE program. It was deduced, once therapy ended, parents struggle with a structured behavioral intervention program like FSS whereas the CARE program provided support benefits for families. This suggests a supportive, educational intervention may be beneficial in maintaining effects of treatment. Combining FSS and CARE interventions may be a good strategy to maintain the effects of FSS. They recommend parents with ADHD would benefit from additional support in the structured treatments of CARE due to the decrease in treatment effects during follow-up. Interventions such as medication treatment, decreasing the frequency of treatment sessions once medication dosages reach effective levels, education about

ADHD, support systems, and the use of technology may increase the gains made during treatment.

Due to difficulties with attention and task completion, adults with ADHD may lack follow through for treatment. Parents with ADHD may lose interest and switch treatment plans frequently. In families where multiple members have ADHD, there are other challenges. It is not clear whether symptoms in one family member are in response to another family member's symptoms. Therefore, if one family member is treated, they assume all will be well. Parent training programs, particularly when group participation is involved, create other challenges. Being back in a classroom may cause the parent to revert to disruptive behaviors or they may struggle with behavior-reward methods and need more of a hands-on approach in the home. Due to an ADHD-parent's lack of consistency and follow-through, parent training can be challenging. Ongoing support and monitoring may be required to achieve long-term success.

Parents with ADHD who have learned coping mechanisms to deal with their disorder or who have been treated for ADHD may be able to share their experiences with their children. They may be able to explain coping strategies as well as give support and understanding. Associations such as CHADD, Children and Adults with Attention-Deficit/Hyperactivity Disorder, are valuable resources in the education and support of adults with ADHD and parents of children with ADHD.

Johnston, Mash, Miller, and Ninowski (2012) state the most common form of adult treatment for ADHD is medicinal stimulants. However, there has been little to test its effect on parenting. The same can be said for cognitive behavioral therapy interventions (CBT), or combining positive self-talk with traditional behavioral therapy, which involves interventions from parents and teachers.

The authors claim in order to create more positive parenting practices, parenting interventions for adults with ADHD may need to be more repetitive, hands-on and skills-based. If lectures are used as interventions, the timing may need to be shortened and focused on small groups with faster-paced presentations. Parenting interventions should be focused on areas of strength as well as deficiency, such as organization and planning or using friends or partners for assistance with parenting. To enhance parenting behavior, modifications in the home and in the community may need to be made as well as adding more instant, positive reinforcement for positive behaviors. Over time, parental deficits due to ADHD may create feelings of inadequacy in parenting skills, creating a further need for support and understanding.

CHAPTER III: DISCUSSION AND SUMMARY

Summary of Literature

The focus for this research was to gain understanding of ADHD and its effects on family dynamics, particularly relationships between a child diagnosed with ADHD, the child's parents, and the child's siblings, as well as to offer coping strategies and interventions. This effort to understand ADHD and its effects on the family enables educators to offer strategies to counteract negative impact on future family functioning and mental health.

The Impact of ADHD on Family Relationships

Family dynamics. The effects of ADHD change throughout an individual's lifetime, impacting not only the child, but also parents, siblings, and the entire family as a unit (Harpin, 2005). Therefore, the treatment of ADHD should consider the daily impact of ADHD on the child and the child's family as well as the impact through each stage of the child's life.

The combined financial burden along with the stress and strain experienced by parents of children with ADHD affect the child's success in school, with their peers, and with the services and treatment they receive (Riley et al., 2006). Combined, these issues impact daily family life, schedules, routines, mental health, and finances.

Parenting style is indirectly associated with a child's ADHD, but directly related to the ADHD-child's behavior problems (Munoz-Silva, Lago-Urbano, and Sanchez-Garcia, 2017). The behavior problems, rather than the ADHD symptoms, negatively impacted the parental relationship, social life, attitudes, and feelings toward their children.

Parenting practices. Parental mental health is important to consider when treating ADHD-children within a family. Of the 40% of children with ADHD, one or both parents are likely to also have ADHD (Takeda et al., 2010). When fathers or both parents have ADHD, the

incidence of children with combined ADHD subtypes tends to be higher, suggesting fathers' ADHD symptoms are large contributors to inattentive subtype ADHD in their children.

When both parents have ADHD symptoms, communication and interaction is more positive when interacting with a child with ADHD. When the same parents interact with a child exhibiting typical behavior, communication and parenting interactions are less positive (Wymbs et al., 2016).

Parental ADHD symptoms and deficits are important considerations when creating an environment with early interventions for a child with ADHD. When parents lack skills due to ADHD they are less able to assist their children in developing these skills. This may increase the ADHD symptoms in their children, leading to additional disorders such as oppositional disorder (ODD). The ADHD symptoms of the parent and child may be similar, thus inhibiting the parent from viewing the behaviors as detrimental. Adults with ADHD show difficulty in occupational, academic, and interpersonal relationships (Johnston et al., 2012). Therefore, within the family, adults with ADHD may lack skills necessary to maintain healthy relationships with spouses and children.

ADHD symptoms in parents are associated with stress and marital problems as well as negative consequences for their children such as oppositional defiant disorder (ODD), anxiety, and depression (Moroney, Tung, Brammer, Peris, and Lee, 2016). Mothers' ADHD contributes to more negativity in the family when the ADHD-child has hyperactive-impulsive and inattentive subtype ADHD (Auerbach, Zilberman-Hayun, Atzaba-Poria, and Berger, 2016).

ADHD symptoms as well as accompanying disorders in both the parents and the child play a part in negative parenting behavior due to deficits in executive function and self-regulation (Wymbs, Wymbs, and Dawson, 2014). Parents with inattentive-ADHD use more

negative parenting practices and communication than the hyperactive/impulsive subtype of ADHD due to poor executive functioning skills such as organization and behavior regulation, which were viewed negatively by their non-ADHD partners. Parental ADHD symptoms are also associated with more rigid and lenient parenting behaviors (Park, Hudec, and Johnston, 2017).

The parent-to-child relationship. Attention-deficit/hyperactivity disorder affects many aspects in the lives of the child, parents, and siblings, which in turn disturbs the functioning of the entire family (Pour and Fatemeh Kasaei, 2013). Parents of children with both ADHD and another comorbid behavior such as ODD (oppositional defiant disorder) or CD (conduct disorder) are more likely to exhibit negative communication with each other especially in child rearing practices, than parents of children without ADHD Wymbs and Pelham (2010). This negative communication between parents indicates disruptive child behavior as a cause of marital conflict, especially in relation to communication and parenting practices. Conflict between parents of ADHD-children shows more behavior problems and hyperactivity of the children with ADHD/CD could exacerbate parental conflict versus decreasing parents' ability to resolve conflict (Wymbs, Pelham, Molina, and Gnagy, 2008).

More adverse environments are created in families when the parents have ADHD, especially when the ADHD symptoms belonged to the mother (Agha, Zammit, Thapar, and Langley, 2013). Parental-ADHD symptoms, along with depression, are the strongest predictors of parental stress (Theule, Wiener, Rogers, and Marton, 2011). When stress in the parent is reduced with treatment of parental ADHD, the parents' ability to implement interventions may then improve the functioning of an ADHD-child.

Young ADHD-children with combined-type ADHD (CD or ODD) are more challenging to parent due to the likelihood these children have higher impulsivity, lower ability to adapt to

environmental changes, and moodiness, causing the greatest disturbances to family dynamics (Miranda, Grau, Rosel, and Melia, 2009). These factors as well as lower economic status and less educational levels are shown to cause greater health problems and conflict between parents, as well as increased negative parenting strategies. Therefore, in families with low economic status and with low educational levels, a combination treatment of medication and training in behavior modification works most effectively.

The impact of ADHD on the child. Whereas ADHD has a negative impact on the child, family, school, peer relationships, and family relationships, the relationships most-impacted by ADHD include child-parent, child-sibling, and child-other children (Coghill et al., 2008). This indicates the importance of ADHD treatment and behavioral interventions throughout the child's day to assist with maximum achievement in all areas of the child's life.

Though family support and information help reduce stress and assist the child and other family members through the process, an individual with ADHD should be treated as a whole person, including the family as a unit (Harpin, 2005).

The impact of ADHD on siblings. Though there is a lack of research regarding the effects of ADHD on siblings within or outside of the family, there are likely connections to the health and happiness of those with whom they tend to spend the most time, notably siblings.

The non-ADHD sibling(s). The degree of malcontent siblings have with family and with overall life is similar to that of their ADHD-sibling, suggesting needs are possibly not being met for both the ADHD and non-ADHD sibling (Peasgood et al., 2016).

Coping strategies and interventions for families with ADHD

There are many treatment options to manage and improve the performance of children with ADHD including medications, behavior therapy, education, and use of technology to

sustain treatment effects. A multimodal approach to treatment, using multiple methods of treatment together, may be beneficial as impairments can be addressed in multiple areas and there are efforts to collaborate between parents and families, school officials (Dawson, Wymbs, & Marshall, 2016).

The parental role in ADHD interventions

In an effort to aid and enhance family involvement in the academic assistance of ADHD-children, parental training is necessary to develop beneficial strategies (Dawson, Wymbs, and Marshall, 2016).

Due to the heredity factor associated with ADHD, many parents of ADHD-children may have difficulties with attention, task completion, and follow through for treatment. They may lose interest and switch treatment plans frequently or assume if one family member is treated, all will be well. Parent training programs may cause the parent to revert to disruptive behaviors or they may struggle with behavior-reward methods and need more of a hands-on approach in the home.

On the other hand, parents with ADHD who have learned coping mechanisms to deal with their disorder or who have been treated for ADHD may be able to share their experiences with their children and explain coping strategies as well as give support and understanding.

Little research has been found testing the effect of medicinal treatments or cognitive behavioral therapy (CBT) and its effect on parenting (Johnston, Mash, Miller, and Ninowski, 2012). In order to create more positive parenting practices, parenting interventions for adults with ADHD may need to be more repetitive, hands-on and skills-based. To enhance parenting behavior, modifications in the home and in the community may need to be made as well as adding more instant, positive reinforcement for positive behaviors. Over time, parental deficits

due to ADHD may create feelings of inadequacy in parenting skills, creating a further need for support and understanding.

Limitations of Research

More research is required to understand the role of the mothers, the fathers, and children of both genders. More long-term research is necessary on the relationships between family members over time. It is further recommended to include non-ADHD parents in the research as well as adult-ADHD impact on all family members. There is little information on the strengths ADHD may bring to parenting and how it could contribute to a more positive experience for the family.

Many of the studies, such as those conducted by Williamson, Johnston, Noyes, Stewart, and Weiss (2016), utilized self-reported questionnaires, which could lead to discrepancies across other reports. In this particular study, a low rate of significant parent ADHD symptoms suggested participants were predominately from two-parent, high-functioning families, leading to possible bias. As in this study, much of the research involved male children and did not include a wide range of other possible disorders such as antisocial personality disorder or depression. Adults in studies such as those by Dawson, Wymbs, and Marshall (2016) not only self-reported and rated their own ADHD symptoms as well as those of their child, but were also highly motivated and followed through with the entire research process. Families not so highly motivated were likely underrepresented.

Few studies consider how ADHD symptoms affect the interactions of family members when more than one has diagnosed ADHD. Many children with ADHD live in households with both parents, some of whom having diagnosed ADHD or other mental health disorders.

Understanding the effects ADHD on family interactions is important to note when developing effective treatment plans and assisting the AHDH-child in having a successful life.

Implications for Future Research

Due to the genetic nature of ADHD and results of current research, parenting behaviors directly influence the development and support of child ADHD symptoms as well as other coexisting disorders. Further research regarding the impact adult ADHD has on parenting is necessary to understand how genetics as well as environmental factors affect a child (Johnston, Mash, Miller, and Ninowski,2012). This research would assist in creating methods of prevention and early intervention programs to possibly reduce costs associated with ADHD and its related disorders.

It is also important to further investigate the impact ADHD has on a family when both parents in a household have ADHD symptoms. Further research in this area could focus on the strengths of these parents and provide interventions and coping mechanisms for families with ADHD. Williamson, Johnston, Noyes, Stewart, and Weiss (2016) also urge further research to consider symptoms and severity of ADHD and other related disorders in both parents in relation to parenting. It is the hope that, as more research is completed, the positive effects of ADHD on the child, the family, and the environment are addressed.

Dawson, Wymbs, and Marshall (2016) recommend, to preserve progress from treatment, exploring the role of ADHD on parenting practices to determine its effects on follow-through and gains with treatment when the primary caretaker has diagnosed ADHD. They recommend more investigation of the effectiveness of interventions (medication, ADHD education, support groups, technology) in isolation and in combination.

Implications for Professional Application

Cooperative relationships between home and school may lessen the need for medications. Working together, parents and teachers are able to create and to install behavior-modification programs to increase the child's opportunity for success in academics and with peers at school. This will help reduce stress for parents at home and for teachers in the classroom.

In the process of treating ADHD, it is important to involve forces outside of the family advocating for children with ADHD. These forces may include physicians, community support programs, ADHD advocates, and legislative lobbyists. Whereas there are many factors which increase stress for those working with ADHD-children, using a collaborative process will undoubtedly lead to achievement of quicker, more positive results.

Conclusion

The focus for this research was to gain understanding of the ways family dynamics are affected between a child diagnosed with ADHD, the child's parents, and the child's siblings. The symptoms and associated behavioral issues place strain on the family as a unit as well as the ADHD-child. ADHD is highly hereditary. Therefore, if one parent has been diagnosed with ADHD, it is highly likely he/she will have a child with ADHD. When a parent has ADHD symptoms such as lack of attention or organization, the entire family may be affected by such things as forgotten medications or doctor visits, more negative parenting practices, more stress, and increased difficulties gaining or sustaining employment.

Parental ADHD symptoms may also create challenging interactions between parents and teachers. Being sensitive to these family struggles will benefit everyone including the ADHD-child, the parents, the family, the teacher, and peers.

There are two evidence-based treatments for ADHD, medicine and behavior treatments (van der Oord, Bogels, and Peijnenburg, 2012), both with limitations. Medication is short term and may have side effects. Behavioral parent training as well as mindfulness training may be challenging when one or both parents also have ADHD symptoms, which could lead to ineffective training. Treating both the ADHD-child and the ADHD-parent simultaneously may help reduce potential ADHD-parent laxness in completion of trainings.

When exploring the impact of ADHD on the entire family, it is important to consider all members of the family. There is a lack of research and resources available to families with ADHD, especially for families having one or both parents with ADHD. Families do not feel sufficient support is available, which may lead to further decreased feelings of self-worth.

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