

TUREK, LAURA M. Ed.D. Parental Perspectives Regarding Sports Participation of Children Diagnosed with Attention Deficit Hyperactivity Disorder. (2023)
Directed by Dr. Ben Dyson. 68 pp.

Children with Attention Deficit Hyperactivity Disorder (ADHD) can experience symptoms such as hyperactivity, impulsivity, and lack of social awareness, which can negatively impact their physical, mental and emotional well-being and have long term effects. Physical activity provides an alternative intervention from medication and behavioral therapies for children with ADHD without negative or long-term side effects and participating in sports is one method of physical activity that can be utilized. Currently, there is not a clear consensus in the literature on what specific type of sports participation is most beneficial to children with ADHD and with so many children affected by ADHD, it is necessary to increase the information on treatments and ways to reduce and manage the symptoms.

This study examined the perspectives of parents regarding the sports experiences of their children diagnosed with ADHD using a qualitative case study approach. Participants included 19 parents of children between the ages of 7 and 12 years old diagnosed with ADHD that participate in sports. Individual interviews were conducted using semi-structured questions to discuss their child's symptoms, treatments, and experiences with sports participation. Data analysis revealed that the participants felt that swimming, soccer, and basketball were the most successful sports for children with ADHD. Increased confidence, enjoyment, better sleep, and improved social skills were the key factors in these sports being successful. Baseball or t-ball and soccer were identified by participants as the least successful sports for their children with ADHD. Five themes emerged from the data analysis: *improvements, having an outlet, it's the coaches, just too much, and meds change things*. All 19 parents that were interviewed for this study felt that sports were beneficial for their child with ADHD.

PARENTAL PERSPECTIVES REGARDING SPORTS PARTICIPATION OF
CHILDREN DIAGNOSED WITH ATTENTION DEFICIT
HYPERACTIVITY DISORDER

by

Laura M. Turek

A Dissertation
Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Greensboro

2023

Approved by

Dr. Ben Dyson
Committee Chair

© 2023 Laura M. Turek

DEDICATION

This is dedicated to my sons, Liam and Matthew. You have been my motivation from the very beginning. You always understood when mommy had to do her schoolwork. After finishing cancer treatment, I wanted to show the two of you that no matter what, you can always chase your dreams. You have been asking, “when can we call you Dr. Mommy?” Well, the time has come my sweet boys, when this is all approved, the two of you can call me Dr. Mommy. The rest of the world will know me as Dr. Turek.

APPROVAL PAGE

This dissertation written by Laura M. Turek has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair

Dr. Ben Dyson

Committee Members

Dr. Jennifer Etnier

Dr. Pam K. Brown

June 6, 2023

Date of Acceptance by Committee

April 20, 2023

Date of Final Oral Examination

ACKNOWLEDGEMENTS

This dissertation would not have been possible without the guidance of my committee, Dr. Ben Dyson, Dr. Jennifer Etnier and Dr. Pam K. Brown. Dr Dyson, your support from the very beginning of the program at orientation has been unwavering and for that I am so appreciative. You never let me forget that I could do the work. Dr. Etnier, your guidance throughout this process has been incredibly beneficial not just to my writing, but to me personally and professionally. I have grown a great deal because of it. Dr. Brown, I do not have the words to accurately thank you for taking a chance 4 years ago on a stay-at-home mom who had not been in a classroom in over 10 years. You gave me the opportunity of a lifetime to fulfill my dream. Your support every step of the way has been a great comfort and source of confidence and we are all incredibly lucky to have you lead our program.

To my mentors, Dr. John Paul Muczko and Dr. Sue Mullane, thank you. Your faith in me as your student and your heartfelt encouragement in the present to go for it was instrumental in me pursuing this dream.

To my husband Mike and my sons Liam and Matthew, thank you for your patience and understanding as I pursued this degree. Your love and support have been the backbone of my studies. Finally, to my 2019 cohort, just keep swimming. I truly look forward to continuing the lifelong friendships we have created throughout the last four years. Thank you for being there every step of the way.

TABLE OF CONTENTS

LIST OF FIGURES	viii
CHAPTER I: PROJECT OVERVIEW.....	1
Background	3
Mental Health and Cognitive Functioning	4
Sports Participation	6
Lack of Clarity on Physical Activity and Sports	9
Purpose and Research Questions.....	10
Methods.....	10
Participants	11
Data Collection.....	13
Individual interviews	13
Data Analyses.....	14
Researcher Positionality	15
Results	16
What works and what does not work?.....	16
Theme 1: <i>Improvements</i>	18
Theme 2: <i>Having an outlet</i>	19
Theme 3: <i>It's the coaches</i>	20
Theme 4: <i>Just too much</i>	22
Theme 5: <i>Meds change things</i>	23
Discussion	23
Limitations and Future Directions.....	25
CHAPTER II: DISSEMINATION	26
Executive Summary	26
Talking Points for virtual discussions	29
CHAPTER III: ACTION PLAN.....	32
REFERENCES	35
APPENDIX A: DEMOGRAPHIC SURVEY	42

APPENDIX B: INDIVIDUAL INTERVIEW QUESTIONS.....	45
APPENDIX C: RECRUITMENT SCRIPT	47
APPENDIX D: CODEBOOK.....	48
APPENDIX E: VISUAL ABSTRACT.....	67
APPENDIX F: PARTICIPANT EMAIL.....	68

LIST OF FIGURES

Figure 1. Most Successful and Unsuccessful Sports	17
---	----

CHAPTER I: PROJECT OVERVIEW

Attention Deficit Hyperactivity Disorder (ADHD) affects 11% of children and is diagnosed more than any other behavioral disorder in children (Tandon et al., 2019). The most common symptoms of ADHD are impulsive behavior, lack of attentional focus, and hyperactive behaviors that impact a person's executive functioning (Benzing, 2020). It is almost three times more common in boys than in girls and can be associated with other disorders such as anxiety and oppositional defiant disorder (Suarez-Manzano et al., 2018). Children diagnosed with ADHD can experience a variety of issues including academic difficulties, social problems, substance abuse, lower life expectancy, and obesity (Tandon et al., 2019). Caye et al. (2019) found that children with ADHD, "show an increased risk of accidental injuries, poor relationships with peers and parents, worse quality of life and impaired school performance" (p. 390). In their study on the quality of life of children, Kumar et al. (2020) concluded that children with ADHD are more prone to have a lower quality of life and adjustment issues because of the variety of emotional, behavioral, physical, and psychosocial symptoms they can experience as part of ADHD. Some of the symptoms they mention are impulsivity, hyperactivity, and inattention and Kumar et al. (2020) reported that these symptoms can lead to reckless behavior, accidents, and peer isolation which in turn leads to lower quality of life.

There are various treatment options for ADHD including medication, behavioral therapy, or a combination of these (Cerrillo-Urbina et al., 2015). However, stimulant medications used to treat ADHD include Ritalin and Adderall and can lead to side effects that cause weight loss, sleep disturbances and more (Cornelius et al., 2017). Behavioral therapy requires that parents be educated along with the children on techniques to help the child with ADHD deal with their symptoms and learn coping mechanisms (Wolraich et al., 2019). Wolraich et al. (2019) reported

that combining medication and behavioral therapy can lead to positive effects in academic and conduct measures. Both medication and behavioral therapy lose their effectiveness when discontinued.

More recently, physical activity has been researched as another treatment option that can be beneficial for a child diagnosed with ADHD without the possible harmful negative side effects of medication such as weight loss or sleep disturbances. In their review, Suarez-Manzano et al. (2018) reported that they found no negative associations with physical activity for children with ADHD. Cornelius et al. (2017) also conducted a review and found that physical activity could be a viable option for unmedicated children with ADHD as a method of symptom management. Daily physical activity is recommended by the U.S. Department of Health and Human Services as necessary for all children, regardless of an ADHD diagnosis. Physical activity can help increase bone strength, improve the cardiorespiratory system, and increase muscular strength when children participate in their daily required amount (U.S. Department of Health and Human Services [HHS], 2018). In children with ADHD, physical activity is further believed to help improve behavioral issues by being the stimulation that children with ADHD need without medication (Lufi & Parish-Plass, 2011). It can also help prevent future physical issues, such as obesity, which has been linked with having an ADHD diagnosis (Quesada, et al., 2018). With the variety of positive effects from physical activity previously mentioned, there appears to be clear support from the literature that physical activity is beneficial for children with ADHD. What is needed are more clearly defined recommendations on utilizing sports as a mode of physical activity to help educate and guide parents to choose the best method to benefit their child diagnosed with ADHD. The research on utilizing sports as a method of physical activity for ADHD symptom management is minimal and does not consider the voice of the parent.

Background

Children with ADHD can often be spotted in a classroom as the students who are daydreaming, forgetting their assignments, or doodling on their paper or as the student who is bouncing their knee, talking out of turn, blurting out answers, and rushing to get their work done. The issues for a child with ADHD are not limited to the classroom. They can also be seen in similar ways at home and in their extracurricular activities. They may have difficulty completing their homework without direct parental supervision. They may have difficulty with extracurricular activities due to poor social skills or anxiety and depression (Lee et al., 2014). ADHD affects multiple aspects of a child's daily life from the time they wake up until they go to bed each night.

There is no one specific identifiable cause for ADHD, but it has been shown that there is a genetic component with a heritability rate around 75% (Feldman et al., 2014). ADHD is officially diagnosed by a physician after a child has been exhibiting symptoms such as hyperactivity, impulsivity, lack of attentional focus and poor executive functioning skills in the classroom, at home or in both places (Wolraich et al., 2019, Ziereis & Jansen, 2015). The DSM-5 (APA, 2013) states that, "ADHD is a neurodevelopmental disorder defined by impaired levels of attention, disorganization, and/or hyperactivity-impulsivity." ADHD is broken down into three types within the DSM-5: Predominantly Inattentive, Predominantly Hyperactive-Impulsive and Combined and for an ADHD diagnosis, the person must be experiencing symptoms for at least the last six months and the symptoms must occur in more than one setting such as school and home (APA, 2013). The patient's symptoms are then classified as mild, moderate, or severe. The median age for an ADHD diagnosis is 7 years old but in 33% of cases, the diagnosis occurs before the age of 6 years old (Wolraich et al., 2019).

Boys are diagnosed with ADHD more than girls (Wolraich et al., 2019). The dramatic difference in diagnosis rates between boys and girls tend to be more pronounced in studies using clinical samples versus population samples (Ruiz-Goikoetxea et al., 2018). These rates do not necessarily mean that girls are less likely to have ADHD but are more a result of the types of symptoms girls with ADHD will usually display (Mowlem et al., 2019). Boys with ADHD usually display hyperactive and impulsive behavior type symptoms more than girls, who more often display variations of inattentive symptoms such as daydreaming and lack of focus as found by Mowlem et al. (2019). Regardless of gender, ADHD can lead to other issues such as depression, anxiety, and obesity which lead to lower quality of life as reported by the children according to Dolgun (2014).

Mental Health and Cognitive Functioning

Various researchers have found that physical activity is not only beneficial to children with ADHD from a physical health perspective, but also a mental health perspective. Physical activity has been recommended for children with ADHD to increase calmness (Kang et al., 2011). Physical activity can also help reduce the symptoms of depression and anxiety that many children with ADHD experience. Kumar et al. (2020) reported that up to 50% of children with ADHD also have major depressive disorder and the anxiety and depression can further exacerbate functioning and educational issues in children with ADHD. Efron et al. (2016) found 23% of the children in their study with an ADHD diagnosis suffered from anxiety. Difficulty with peers and family members can contribute to these anxiety and depression issues. Children with ADHD may have difficulty or even an inability to control their behaviors in social situations which can lead to further problems. Some of the factors that affect this lack of social skill is the lack of self-regulation as well as aggression and impulsivity (Kumar et al., 2020).

Ragnarsdottir et al. (2018) discovered that over 50% of elementary aged students with ADHD are rejected by their peers, in comparison to only 10-15% of children without ADHD. They mention that many of these social difficulties are already in place by age seven years and can lead to further problems in adolescence. If left untreated, ADHD can lead children to isolate themselves and further lower their self-esteem which can worsen their depression and anxiety. Despite difficulties with physical activity, it is important for children with ADHD to be physically active in some way because it can help counteract depression and anxiety as well as other issues associated with ADHD such as obesity.

In their systematic literature review, Den Heijer et al. (2017) found that cognitive, behavioral, and socio-emotional functions are positively affected with a varying amount of acute and chronic cardio exercise in children with ADHD. This occurs because physical activity affects the levels of norepinephrine, dopamine, and serotonin levels in the prefrontal cortex and other areas of the brain (Ng et al., 2017). This effect is similar to how the stimulant medications affect the brain and reduce ADHD symptoms while also increasing levels of serotonin. This can lead to better moods and attention, the researchers explained. Similarly, Gawrilow et al. (2016) suggest that physical activity can have a positive effect on cognitive functioning and emotional and social well-being.

Grassman et al. (2017) also reported that physical activity is another option for treating ADHD because it may improve cognitive functioning in children with ADHD. Gapin et al. (2011) concurred and found that children with ADHD could see a larger cognitive benefit from physical activity than their peers without ADHD. In their systematic review of the literature on physical activity and how it affects children with ADHD, Cerrillo-Urbina et al. (2015) reported that aerobic exercise did improve executive functioning, anxiety, and impulsivity in children

with ADHD.

In their study about the parental perceptions of the effects of exercise on behavior in children with ADHD, Gapin and Etnier (2014) reported numerous perceived benefits from physical activity for children diagnosed with ADHD. The researchers surveyed parents via the internet using questions regarding symptoms and the effect physical activity has on those identified symptoms. They found that parents reported that physical activity was successful at reducing the behavioral symptoms of inattention and hyperactivity of their children diagnosed with ADHD and led to improvements in academics. They identified that parents felt that physical activity was beneficial beyond the regular benefits of the prescribed ADHD medication alone their child was taking for symptom management. They felt this supported the ability of physical activity to be utilized as an additional method of symptom management.

Choi et al. (2014) found similar results, concluding that aerobic exercise of 60 minutes, 3 times a week improved the effectiveness of the ADHD medication Methylphenidate, also known as Ritalin, at reducing clinical symptoms of ADHD in adolescents. Den Heijer et al. (2017) conducted an in-depth review of the available research on physical activity and ADHD and found that aerobic exercise, specifically cycling or running on a treadmill, led to improvements in response inhibition, processing speed, and cognitive flexibility. They also found that there were improvements in academic performance of children with ADHD after aerobic exercise. Based upon their review, it was also clear that teachers and parents saw improvements in behavior and aggression after aerobic exercise.

Sports Participation

Participating in organized sports is one way children can be physically active. Through participating in sports, children with ADHD could see benefits in the form of decreased

symptoms and a healthier mind and body. O'Connor et al. (2014) also mention that peer relationships and social skills could improve through participating in sports. In their study on the effect of physical activity on the mood and anxiety symptoms of children with ADHD, Kiluk et al. (2009) found that children who played three or more sports a year showed less symptoms of anxiety and depression than their peers with ADHD who played fewer than three sports a year as reported by their parents. The researchers controlled for contributing variables of social and school issues and still found positive effects on mood and anxiety in children with ADHD. Pagani et al. (2020) conducted a study from 2004 to 2008 using a subsample of data from the Quebec Longitudinal Study of Child Development. The study included 1491 children and was almost evenly split by gender as 49% of the included subjects were boys. Data was collected from the mothers who answered questions regarding extracurricular sports participation at six, seven and eight years old. At age 12, the teachers of the subjects in the study were given the Social Behavior Questionnaire at the end of the school year to report on the hyperactive and inattentive symptoms of the subjects. The study showed that girls with sustained participation in extracurricular sport from ages 6 to 10 showed less ADHD symptoms at age 12, according to their teachers. The researchers concluded that regular participation in sports could be useful as a method of behavioral intervention for children with ADHD.

In a similar study, Kang et al. (2011), conducted a 6-week trial of sports therapy to determine if the sports therapy would be beneficial to children diagnosed with ADHD. Teachers and parents rated social skills and attention symptoms while the researchers focused on the cognitive skills of the participants. A total of 28 children participated in the study with 15 of the participants randomly being placed in a group to receive sports therapy and the remaining 13 participants were put into a behavioral training program. All the participants were on a stimulant

medication (methylphenidate) during the study. In their study, Kang et al. (2011), showed that cognitive function improved because of the sports therapy. Also, the participants were able to make improvements in their social skills and attachment to family, friends, and school. Kang et al. concluded their study with confidence stating that their sports therapy program was beneficial to children with ADHD.

In another sport-focused study, O'Connor et al. (2014) found that a summer treatment program involving team sports helped children with ADHD improve sportsmanship behavior as reported by parents. The subjects also improved their sports skill knowledge, which the authors felt could lead to further increases in sport participation for the children diagnosed with ADHD when their peers involved them more in the game. Similarly, Neudecker et al. (2019) reported that data from the U.K. Millennium Cohort Study showed 5-year-old children who participated regularly in sports had fewer symptoms related to hyperactivity and inattention. In their study, Lee et al. (2014) interviewed athletes with an ADHD diagnosis about their experiences in sports and found that participants reported benefits from having the outlet to release their stress and energy and associated improvements in their academic performance with their participation in sports. The subjects also reported positive social experiences with teammates and that having coaches who were supportive of their mistakes instead of being critical of them was beneficial to their continued participation and enjoyment. The researchers reported negative findings as well, discussing how negative experiences with peers and coaches occurred due to impulsivity control issues. Lee et al. concluded their study by explaining how little data currently exists on sports participation in individuals with ADHD and referred to the lack of cohesion in data collection in the studies that are available. The researchers felt that the benefits from sports participation were more important than the number of sports played by the individual.

Lack of Clarity on Physical Activity and Sports

Currently, there is not a clear consensus in the literature on what specific type of sports participation is most beneficial to children with ADHD. Several researchers address this in their work. Ng et al. (2017) felt that there was an identifiable benefit to physical activity being used as a method of treating ADHD but recognized that the studies that are currently available vary greatly in methodologies. Neudecker et al. (2019) suggested in their systematic review that specific recommendations are needed for children with ADHD regarding physical activity, and Bustamante et al. (2016) called the literature on physical activity and ADHD “weak” in methodology and highlighted the lack of studies on multiple groups, chronic exercise, and randomization. In their article reviewing the literature on physical activity and ADHD, Hoza et al. (2016) addressed the discrepancies and limitations among the current research studies and reported that recommendations for physical activity varied between 31 to 90 minutes in duration and 2 to 5 days a week in frequency. In addition, the length of reported program interventions varied from 5 weeks to 12 weeks. Mercurio et al. (2019) also recognized these discrepancies and mentioned that the small number of participants in the various studies on ADHD and physical activity was a limitation. Pagani et al. (2020) addressed the lack of study length in their research on extracurricular sports and ADHD symptom management as did Johnson and Rosen (2000) who directly mention that there is very little research on sports activity and hyperactive children.

Not only is there a gap in the research about the most beneficial physical activity and sports for children with ADHD, but there is an even larger gap in research that includes the parents of children with ADHD. Parents and guardians are the decision makers for their children’s care, and they are searching for treatment methods beyond the traditional methods (Davis et al., 2012). In searching for literature that included parental feedback regarding physical

activity, studies by Gapin and Etnier (2014) and O'Connor et al. (2014) were found. Both studies concluded that physical activity/sports were beneficial according to the parents, but neither study offered insight into what type of specific sports the children were participating in to see the perceived benefits.

With so many children affected by ADHD, there is a need for knowledge on treatments and ways to reduce symptoms like inattention and impulsivity. Physical activity provides an alternative intervention from medication and behavioral therapies for children with ADHD without negative or long-term side effects. The review of current literature is very promising regarding the benefits of physical activity on the various symptoms of ADHD and with further research, the findings and recommendations will become more robust. Due to the paucity of research on this specific topic more research is needed to clarify the specifications of what sports are most beneficial for children with ADHD.

Purpose and Research Questions

The purpose of this study was to investigate the perspectives of parents of children diagnosed with ADHD who participate in sports. A secondary purpose of this study was to determine which sports parents perceive as the most beneficial for their children diagnosed with ADHD. The two research questions of this study are:

RQ1: What are parents' perspectives regarding sport participation for their child with ADHD?

RQ2: What sports have parents found to be most successful at helping children with ADHD manage their symptoms?

Methods

This study was conducted with a purposeful homogeneous sample of the parents of children who have an official diagnosis of ADHD from a doctor and who are participating in an

organized sports program (Patton, 2015). A qualitative case study approach was utilized to collect data from the parents of children diagnosed with ADHD between the ages of 7 and 12 years old who participate in sports. The data collected focused on the symptoms the children experience, what sports they participate in and how their participation in sports affects those symptoms. Prior to the interviews, demographic information was collected including age, gender, sports participation, symptoms and current symptom management plan through an online survey. Approval by the Institutional Review Board of the University of North Carolina at Greensboro was attained prior to the start of participant recruitment.

Participants

The participants were recruited through personal friends and online social media support groups for parents of children with ADHD. The recruitment script that was posted to social media can be found in Appendix C. Twenty-seven demographic surveys were distributed with 22 surveys returned. Nineteen individual interviews were conducted. All 19 participants were female mothers of children with ADHD. Most of the participants were between the ages of 40 and 50 years old (n=12) with the others between the ages of 30-40 years old (n=6) and 50-60 years old (n=1). Seventeen participants identified their ethnicity as White/Caucasian and two identified as Other. Of the 19 participants, 14 had a son and five had a daughter with ADHD whose experiences they were sharing. Ages of the children of the participants varied from 7 years old (n=2) to 12 years old (n=3) with a mode of 10 years old (n=6). All children of the participants had an official medical diagnosis of ADHD (n=19) with 12 participants reporting that their child had an additional diagnosis beyond ADHD. Dyslexia (n=2), anxiety (n=2) and autism (n=2) were the primary additional diagnoses mentioned by participants. The most

common age of ADHD diagnosis was 7 years old (n=8) with only three participants reporting a diagnosis after the age of 7.

Impulsivity (n=14), inattention (n=13), executive function challenges (n=13), hyperactivity (n=10), fidgeting (n=10), and anxiety (n=10) were the most reported symptoms. Lack of emotional regulation (n=9), forgetful (n=8), impatient (n=7), lack of social skills (n=5), lack of coordination (n=2), and depression (n=2) were also reported by the participants. More than half of the participants (n=13) answered that their child was on medication for ADHD. Eight of the participants answered that their child was in a treatment of some kind for their ADHD with seven participating in individual therapy with a mental health professional and one participating in occupational therapy. Participants reported that therapies including medication, play therapy, occupational therapy, dietary changes and social skills groups were unsuccessful for their child.

Regarding sports, most of the participants (n=11) reported that their child had participated in sports for more than 3 years. Three participants replied that their child had participated in sports for 3 years while the rest of the participants replied that their child had been in sports 1-2 years. Nine participants answered that their child participates in two sports a year. Two participants answered that their child participates in three sports a year and 8 participants answered that their child participates in one sport a year. When asked if their child played any sports that they no longer participate in, 16 participants answered yes.

More than half of the participants (n=12) participate in sports for 1-6 hours a week. Six participants reported that their child participates in sports 6-10 hours weekly while one participant reported that her child participates in more than 10 hours of sports weekly. When

asked about whether they let the coach know about their child's ADHD diagnosis, 11 participants answered yes, and the rest (n=8) answered no.

Data Collection

Following university IRB approval, participants were provided with a consent document and completed an online survey regarding their child's individual experiences with ADHD by answering questions about demographics in addition to open-ended questions regarding their child's symptoms, treatments, and experiences with sports participation. After completing the demographic questionnaire through Qualtrics, individual interviews were scheduled and conducted. Personal information of the participants was protected using assigned numbers. The interviews were recorded through Zoom. Transcripts were created by Zoom. They were reviewed by the researcher, and participants were offered the opportunity to review the transcripts before coding was completed. All data and interviews were saved on the UNCG Box server to maintain confidentiality and each participant was identified through an assigned number.

Individual interviews

The semi-structured individual interviews allowed the participants to provide personal information to the researcher and give in-depth answers without the confines of a checklist or rating scale. The individual interviews were transcribed through Zoom to maintain the accuracy of the data. The interviews were conducted in a conversational format with open ended questions to allow for participants to provide maximum information. The questions were formatted the same for everyone to maintain continuity throughout the data collection. They were based on an adapted version of the Sport Behavior Checklist created by Johnson and Rosen (2000) used in a previous pilot study, and this process informed the development of appropriate interview questions (Appendix B). The pilot study was conducted in the Fall of 2021 and the questions and

interview skills of the researcher were formed and practiced. Examples of the interview questions used are:

1. What extracurricular sports have you found to be most successful for your child with ADHD? What do you feel makes it successful? How long have they participated in this sport?
2. What extracurricular sports have you found to be unsuccessful for your child with ADHD? What do you feel made them unsuccessful?

Data Analyses

Following the checking and confirmation of the transcriptions, the results of the qualitative data in the transcriptions were analyzed and coded with Atlas.ti software. Open coding was first utilized for data familiarity and to identify the child's symptoms and specific sports played to determine if there was a trend in the sport or sports that parents found most or least successful for their children in terms of helping with their ADHD symptoms (Patton, 2015). Axial coding was completed through thorough data review from the interviews (Patton, 2015). During axial coding, the researcher identified recurring patterns, themes and subthemes within the data and labeled them with codes. Examples of codes used during axial coding include confidence, sleep, medication, and symptoms. After multiple peer debriefing sessions to discuss initial findings, subthemes, and themes, more detailed connections were made from the data, and the themes were adapted and narrowed. A codebook was created based on these adapted themes and can be found in Appendix D.

To maintain the trustworthiness of the research, credibility, transferability to other children, dependability and confirmability as defined by Lincoln and Guba (1985) were established. To address the credibility of the data and research, several peer debriefings were

held with my advisory committee and colleagues before and after data collection to discuss the interview questions, data, and themes. Peer debriefing is a process of sharing my interpretations with my colleagues and chair. To establish transferability, I gathered thorough information on the sports experience of each child through the demographic survey and individual interview. I used that information to describe the child's experiences in the context in which they occurred. To ensure dependability and confirmability, multiple external audits from my advisory committee, colleagues and if possible, other professionals in the field were conducted. Additionally, to further address confirmability, I used participant review allowing the participants to confirm their answers and critical friend review where members of my cohort reviewed and discussed the findings and themes with me (Patton, 2015).

Researcher Positionality

As a researcher, I was searching to find out what sports children with ADHD are participating in the most and what benefits their parents are seeing from the sports participation. I am the mother of an 11-year-old boy who has ADHD and is active in organized sports. I have watched him struggle and succeed in various sports over the years and my personal observations are what has fed this strong desire to conduct this research. My personal perspective on this topic is two-sided in that as a parent, I understand how important my son's well-being, social interactions and happiness are. As a kinesiologist and former physical education teacher and coach, I understand the importance of my son's physical health and the need for him to participate in sports and interact with teammates and coaches.

My goal was to interpret and represent the answers given by the parents to understand what sports children with ADHD are finding the most benefit from according to their parents. As a parent of a child with ADHD, my approach was somewhat of a narrative approach as described

by Patton (2015). He wrote that the narratives “are usually analyzed to generate knowledge.” The knowledge I seek is an understanding of the sports experiences of children with ADHD as described by their parents. I sought this knowledge from a place of empathy, as described by Schwandt (2000) and Pope (2006). I empathize and understand what these parents go through with their children having an ADHD diagnosis, and I understand the need for sports in a child’s life from the standpoint of a kinesiologist with degrees in Physical Education, Sports Medicine and Sport Administration, and certifications in Health and Physical Education and Athletic Training.

Results

The primary aims of this study were to identify and represent the perspectives of parents whose children are participating in sports and to identify which sports those parents found most successful for their children. After thorough coding of the individual interviews for themes and sports mentioned in the 19 interviews, the most successful and least successful sports reported were identified and will be discussed below. Five themes were drawn from the data:

Improvements, having an outlet, it’s the coaches, just too much, and meds change things. These themes will be discussed below.

What works and what does not work?

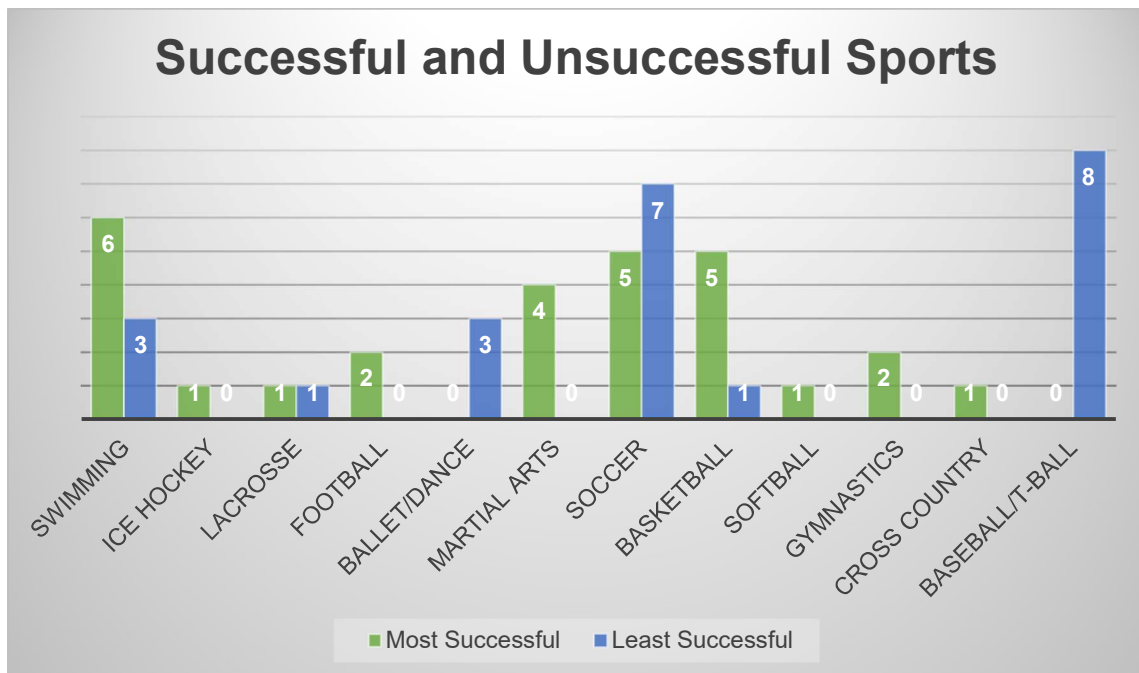
According to the participants in this study, swimming was the sport mentioned most as being successful for children with ADHD (n=6). Several parents also found basketball (n=5) as

successful for their children with ADHD. Martial Arts was also mentioned as successful by four participants.

Regarding the sports mentioned as least successful by participants, baseball/t-ball (n=8) was identified as least successful by participants. Swimming (n=3) and Ballet/dance (n=3) were also mentioned as being the least successful for the participants children.

Soccer was mentioned frequently throughout the data collection. It scored highly as most successful by five participants and least successful by seven participants. Those that found it to be successful mentioned that it was successful because of the constant movement up and down the field and the social aspect of it. Other participants mentioned that the constant direction changes and overwhelming atmosphere of soccer with the constant coaching feedback and spectators and physical play of the game made it unsuccessful for their child. The full breakdown of sports mentioned as successful and unsuccessful can be seen in Figure 1.

Figure 1. Most Successful and Unsuccessful Sports



Theme 1: *Improvements*

Throughout the interviews, one thing that became clear was sports participation led to improvements in the lives of the children with ADHD. Those improvements were increased confidence, better sleep, enjoyment of their sport, and improvements in social skills and friendships. About her 10-year-old daughter, one mother said, “It improves her self-confidence because she is very good. And for a while that was the only thing, she was she felt good about herself, for was her athletic ability. And you know, because schoolwork is a challenge, and when she can do well and swim, and you know that's just huge for her. Every kid has to have some kind of win, and for her sports have been it.” Other participants mentioned that sports gave their child a sense of being good at something and provided something they can be proud of.

Participants also felt that sports participation positively affected their child’s sleep and that sports helped their child feel calmer. Participants found it easier to get their child to follow their evening routine and fall asleep without conflict after practice. Of her 9-year-old son, one mother said, “He'll be kind of even keel and be able to sit, and you know, watch a show or get ready for bed. Um. We see a lot less of a fight at bedtime on practice days. He's, he's tired, and he's ready to go to bed, which is nice.” One mother reported that her daughter verbalized to her that she feels much calmer after swimming and that is why she enjoys it so much.

Participants reported that sports were successful for their child with ADHD because their child enjoyed it, and they were able to socialize. “She enjoys it. It's something that she is happy about um. Those are the things that make it beneficial in my eyes,” reported a mother of an 11-year girl. Another mother reported that other parents have mentioned to her that they enjoy watching her 8-year-old son play soccer because he is always smiling and really looks like he is

enjoying himself. She said, “it’s a good release for him, like you can tell that’s like his happy place.”

Participating in sports comes with the built-in feature of teammates. Many participants mentioned the social piece of sports as one of the reasons they felt sports were successful for their child with ADHD. Sports provided the opportunity to work on communication and social skills. Something that children with ADHD tend to struggle with (Kumar et al., 2020). One participant said, “He was struggling socially because of his behaviors due to his ADHD, so I felt like getting him in sports, and could get him in a little bit of a smaller group and make some friends and um, and just, you know, make connections that way with similar interests.” They also offer children the opportunity to make friends with children not in their school, enabling them to broaden their friendships.

Theme 2: *Having an outlet*

Participants felt that participating in sports gave their child an outlet to let their energy out and move in a safe way without judgement from their peers or other parents and teachers. Sports gave their child a place to be without being judged for falling down, throwing or bouncing a ball or constantly moving. “There's sort of no judgment where you fall. You land, you get hit up against the board. There's no really judgment that you played the play wrong, and you know it's, it's a high impact game, and you fall. You get up and you keep going,” said one participant about her son playing ice hockey. Sports offered their child a place where they would not be in trouble for being a distraction to others and provided a place to be “wide-open” as one participant reported. Another participant said that gymnastics was the only place her daughter had not had someone complain about her behavior. Sports even provided an opportunity to release emotions during activity as reported by one participant whose son played football.

Constant movement was mentioned by multiple participants as one of the reasons a sport was successful for their child with ADHD. “But he has not needed medication, and I think a huge part of that is that he can get his wiggles out in appropriate ways,” said one participant of her 10-year-old son. Sports that parents mentioned specifically as being successful based on the constant movement were soccer, basketball, and swimming. One participant said, “I think basketball has been the better sport for him, because like when he's on the court, he is constantly moving back and forth and back and forth, and it just is good for him.” Participants felt that the constant movement was regulating for their child and helped their child focus. About her daughter participating in swimming, the participant said, “I think it helps regulate her, you know, because she doesn't have a choice. You have to pay attention when you're in water, especially since you can't stand in most of the water she's in. You have to pay attention.” Movement was mentioned numerous times by most participants as a benefit for their child's participation in sports.

Theme 3: *It's the coaches*

During the individual interviews, participants were asked about any positive and negative experiences that stuck out to them and interactions with the coach, both positive and negative came to mind for many participants as well as for something they(the parents) would like to see improved upon. Coaches were mentioned in almost every single interview in one capacity or another. On the negative side, participants reported coaches yelling at their child, singling them out in front of others to ask if they were going to pay attention or even saying they would not pick that child because of how he was acting. One participant said her son was ignored by the coach for his behavior and another participant said her son was benched for his inability to pay attention. A mother of a softball player described a situation where her daughter was singled out

in front of the team and her coach asked her if she had taken her medicine that day because she was not able to focus. Participants reported not telling the coach about their child's diagnosis because they did not want their child singled out or treated differently. Participants only told coaches about their child's ADHD diagnosis if they felt it was necessary because of medication timing or to try and help the coach understand their child's behaviors.

On the positive side, parents recalled patient, kind and understanding coaches who helped their child feel supported. One participant mentioned that her son's swimming coach created an individualized plan so that her son could practice his own way but still complete the workouts. Another participant said, "When you find a coach that can kinda understand what ADHD is and how it works, and how to um get along with kids and how to, you know, really get down to their level is the main thing for any sport." Several parents reiterated similar statements in their individual interviews. Participants felt that coaches who were supportive, encouraging, sensitive and adaptable were the most beneficial for children with ADHD during sports participation.

The final question of the individual interviews asked the participants what they would like to see changed about the sports world for children with ADHD. Eighteen participants mentioned some form of improving coaching education. Participants felt very strongly that coaches and anyone dealing with children with ADHD should be offered some form of knowledge or training about neurodiversity and strategies that can be helpful when managing children with ADHD. Participants mentioned that awareness about ADHD needs to be increased in the sports world among coaches. "ADHD is prevalent in sports. It's why most of these kids play sports, and I think that they should have some sort of awareness, even if it's not training of Hey, This is what's going on with this kid. Maybe you need to coach him a little bit differently, screaming in his face, is not going to work," replied mother of a 10-year-old daughter. As seen

with this data on coaches, they can have a negative effect on the sports experience of children with ADHD. With more awareness and knowledge about ADHD and working with children with ADHD, these negative experiences can be reduced or eliminated.

Theme 4: *Just too much*

The theme of just too much came from the data showing that wait times, noise levels and the actual sports themselves were just too much for children with ADHD as reported by their parents. One mother mentioned that her daughter was overstimulated by all the yelling during her trial martial arts class and decided not to continue with it. Several participants repeatedly mentioned that waiting for their turn was the reason that they felt baseball/t-ball was not successful for their child. They felt the continuous downtime led to their child being bored and losing interest in the activity. About her son's experience with t-ball, one participant said, "Eight kids in front of him are practicing batting, and he's just waiting." Another participant also said baseball was too slow for her son saying, "you're just sitting there waiting for a ball, and it just is boring so he needs that high pace." Other sports that had too much waiting were swimming and ballet. A mother of an 8-year-old girl mentioned ballet as being unsuccessful for daughter saying, "She was glazing over at the verbal instruction which that's a lot of ballet um, and she could not stand there and be still that she'd get on the ground she'd roll over. She'd roll around."

For others, they felt there was too much action happening in the sport for their child to manage successfully. When asked about which sport was unsuccessful for her son, one mother said, "Soccer, because it was just so many moving pieces! Yes, so many moving pieces. But it's I mean you could just imagine once the ball is kicked to you, it's kicking the ball and running and looking up. I mean all those things and watching other people and trying to go for a goal."

Theme 5: *Meds change things*

One thing that affected the sports experience was medication if the child was on it. For the participants whose children were on medicine, they said that the medicine was helpful for their child and made their child's sports experience better. One mother of a 7-year-old boy said that being on medication is what helped enable sports to be beneficial for her son. She said, "I think not being on medication made things really unpleasant." Other participants said that their child was able to perform better and stay on task when their medication was still in their system. "Luckily her games are in the morning, you know, when her meds have kicked in. You know it's like, you know, ten, thirty, or it's like ten o'clock to eleven o'clock. It's her prime time So everything is in her favor," said a mother of an 8-year-old girl who plays basketball. Participants echoed similar sentiments and said that their child might be different on a weekday evening sports event when their daily medication has worn off versus how they behave on Saturday morning sports event when their medicine is in full effect in their body. Medication was looked at a positive method of symptom management by the participants within this study. The participants were aware that it changed their child's sport experience for the better and gave them the ability to focused while on the sports field.

Discussion

The findings in this study support previous research that has found that physical activity through participating in sports is beneficial for children diagnosed with ADHD (Gapin et al. 2014, Kang et al. 2011, O'Connor et al. 2014, Pagani et al. 2020). Participants reported that participating in sports helped boost their child's self-confidence, helped their child sleep better and provided a safe outlet for energy release for their child. Participants felt that basketball, soccer, and swimming were most beneficial for their child with ADHD because they provided

constant movement throughout the practice and competition. Baseball was the least beneficial sport according to the participants because there was too much time spent waiting for a turn to hit or catch the ball. Soccer was also mentioned as a sport that participants felt was not beneficial for their child with ADHD because it had too many things happening at one time for their child to follow. It is important to note that soccer was mentioned as successful because of the constant movement and social interaction and as unsuccessful for the overwhelming nature of the constant movement and overstimulating environment with coaching feedback and spectator noise.

This study showed that medication plays a role in changing the sports experience of medicated children with ADHD. When the child is at the beginning or the middle of their dose of medication, they were better able to participate than if they were at the end of the day or dose of their medication according to parents. One parent also reported their child did not need medication because sports provided the necessary outlet for movement and self-control, saying "he has not needed medication, and I think a huge part of that is that he can get his wiggles out in appropriate ways,"

Lastly, this study provided insight into what parents would like to see improved in the sports world, which was that coaching education needs to be dramatically improved to include education and awareness about ADHD. The participants felt that positive coaching strategies like patience, supportiveness and understanding were helpful to improve their child's experience in sports. This type of education and awareness would be beneficial to coaches at all levels and not just the coaches of the elementary aged children from this study. Based on the findings in this study, sports participation is a successful option for parents of children with ADHD looking for other ways to help their child manage their ADHD symptoms.

Limitations and Future Directions

This study had a few limitations. In data collection, it was not identified if the child's participation in sports came before or after medication was started. This made it difficult to determine specifically if the child's sports experience including enjoyment, symptoms and coaching interactions were altered by taking medication. This would be something beneficial for future research to dissect. Furthermore, gender differences in ADHD symptoms and experiences were not accounted for and this could be a topic for future research.

Future directions for this research could look more specifically at each sport and identify if specific positions within that sport are successful for a child with ADHD. Many participants mentioned that their child found baseball/t-ball to be boring, but the position was not identified and is an area that could be researched as the different positions have different responsibilities throughout the course of the game. In the future, researchers could also compare medicated children with ADHD to unmedicated children with ADHD and see if their sports experiences differ in any way as the medicine is used to for symptom reduction. Another topic for future research would be to break down the successful and unsuccessful sports by gender to determine if gender plays a role in the success of the sports experience of children with ADHD. These answers could further benefit children with ADHD and their parents as they try to find a sport that will be beneficial and fun for the child.

CHAPTER II: DISSEMINATION

The dissertation findings will be presented to the 27 study participants in the form of a detailed executive summary of the findings in email with a visual abstract (Appendix E) displaying the main findings of the study. The executive summary can be found below and includes the demographic information of the participants and a more detailed description of the results of the study. Participants will also be invited to attend one of two virtual meetings to discuss the study if they wish to do so. The meetings will be 30 minutes in length and provide an opportunity for participants to ask questions or provide feedback on their experience. The visual abstract will also be displayed during the meetings to further aid in presenting the results to the participants. The talking points of the meetings are shared below. The emails with the executive summary and visual abstract will be sent in August 2023 and the virtual meetings will also be held in August 2023. A draft of this email can be found in Appendix F. The goal of sharing the executive summary, visual abstract, and holding the virtual follow up discussion is to summarize and share the findings in a manner that these parents can use in future decision making. Particularly as they are considering other sports for their children with ADHD. And hopefully they may be able to pass on this information to others who may be interested.

Executive Summary

The purpose of this study was to examine the perspectives of parents on the benefits of participating in sports for their children diagnosed with ADHD including which sports they felt were most beneficial for their child with ADHD using a qualitative case study approach. Individual interviews were conducted using semi-structured questions to discuss their child's symptoms, treatments, and experiences with sports participation. Below are the key points from the study.

- Participants
 - Mothers of children with ADHD
 - 14 with daughters
 - 5 with sons
 - 12 children had an additional diagnosis beyond ADHD
 - Dyslexia, anxiety and autism were the most mentioned
- Most common symptoms of children reported by their mothers
 - (Impulsivity (n=14)
 - Inattention (n=13)
 - Executive function challenges (n=13)
 - Hyperactivity (n=10)
 - Fidgeting (n=10)
 - Anxiety (n=10)
 - Other symptoms mentioned: Lack of emotional regulation (n=9), forgetful (n=8), impatient (n=7), lack of social skills (n=5), lack of coordination (n=2), and depression (n=2)
- More than half of the participants (n=13) answered that their child was on medication for ADHD.
- Participants did report that medication played a role in changing the sports experience of their child and when their child was at the beginning or the middle of their dose of

medication, they were better able to participate than if they were at the end of the day or dose of their medication

- Results
 - Most successful sports: swimming, soccer, and basketball
 - Participants felt that participating in sports gave their child an outlet to let their energy out and move in a safe way without judgement from their peers or other parents and teachers.
 - Increased confidence, enjoyment, better sleep, and socialization were the key factors in these sports being beneficial.
 - Least successful sports: baseball/t-ball and soccer
 - Participants consistently mentioned that the continuous downtime led to their child being bored and losing interest in the activity

With soccer scoring highly in both successful and unsuccessful, it is important to understand that it was mentioned as successful because of the constant movement and social interaction and as unsuccessful for the overwhelming nature of the constant movement and overstimulating environment with coaching feedback and spectator noise.

- Coaches
 - Mentioned in almost every single interview in one capacity or another.
 - On the negative side, participants reported coaches yelling at their child, singling them out in front of others to ask if they were going to pay attention, or even saying they would not pick that child because of how he was acting.

- Participants reported not telling the coach about their child’s diagnosis because they did not want their child singled out or treated differently.
 - Only told coaches about their child’s ADHD diagnosis if they felt it was necessary because of medication timing or to try and help the coach understand their child’s behaviors.
 - On the positive side, parents recalled patient, kind and understanding coaches who helped their child feel supported.
 - Participants felt very strongly that coaches and anyone dealing with children with ADHD should be offered some form of knowledge or training about neurodiversity and strategies that can be helpful when managing children with ADHD.
- Medication
 - Improved the sports experience for children with ADHD when they were participating in sports with the medication in their system.
 - Key takeaway: Every participant that was interviewed for this study felt that participating in sports was beneficial for their child with ADHD.

Talking Points for virtual discussions

1. The participants were all mothers of children with ADHD between the ages of 7 and 12 years old. 14 of the participants had a daughter and 5 had a son. The most common symptoms the children experienced were impulsivity, inattention and executive function challenges.

2. All participants felt sports were successful for their child and reported better sleep, a calmer demeanor after sports participation and improvements in self-confidence and social skills. Sports participation led to several improvements in their child's life as well as provided an outlet for safe energy release. These were just two of the themes identified.
 - a. One mother said, "It improves her self-confidence because she is very good. And for a while that was the only thing, she was she felt good about herself, for was her athletic ability. And you know, because schoolwork is a challenge, and when she can do well and swim, and you know that's just huge for her. Every kid has to have some kind of win, and for her sports have been it."
 - b. One mother reported that her daughter verbalized to her that she feels much calmer after swimming and that is why she enjoys it so much.
 - c. "It's a good release for him, like you can tell that's like his happy place," said a mother about her son playing soccer.
3. Other themes that came up during analysis were it's the coaches, just too much and meds change thing.
 - a. Coaches were mentioned by parents as having a significant negative or positive impact on their child's sports experience.
 - i. Positive: supportive and creative to include child
 - ii. Negative: singled the child out, refused to let child participate

- b. The loud environment and long wait times were mentioned by participants as significant reasons they found a sport as unsuccessful for their child
 - c. Parents found that medication enhance their child's sports experience when their child had taken it prior to sports participation
4. Most successful and unsuccessful sports as reported by parents:
- a. Successful: swimming, basketball and soccer
 - i. Constant motion was the main reason they felt it was successful
 - b. Unsuccessful: baseball and soccer
 - i. Long wait times and constant motion with too many distractions were the main reasons given
5. Key takeaways:
- a. Participants mentioned coaching education in every interview but one as something that could be improved upon in the sports world for children with ADHD.
 - b. Swimming, basketball and soccer are considered by the participants in the study as most successful for their children with ADHD.
 - c. Coaching education programs should be created to help educate anyone involved in youth sports

CHAPTER III: ACTION PLAN

This study showed that parents have a strong belief that participating in sports is beneficial for their children between the ages of 7 and 12 years old with ADHD as well as what sports were and were not successful for their children and how their children are affected from participating in sports. This is information that other parents of children with ADHD could find useful as they make decisions for their own children on treatments and other methods of helping their child manage their ADHD symptoms.

The first step in my action plan is to present the findings and implications of this study with the study participants in the form of a detailed executive summary of the findings and a virtual abstract. Study participants will also be invited to attend a virtual discussion via Zoom to discuss the results and answer any questions they may have. Additionally, the written and visual abstracts will be shared with the Facebook support groups that were used to recruit participants. In the post on Facebook, I will provide my contact information for any participants of the group to reach out for further information or discussion if they have questions. Also, a poster presentation for the Annual International Conference on ADHD held by CHADD (Children and Adults with Attention Deficit/Hyperactivity Disorder) was submitted for the 2023 conference which will be held in November in Baltimore, Maryland. CHADD is a national organization with local chapters that provides resources, education, information, and support to families dealing with ADHD.

Further local goals include contacting the local CHADD chapter of South Broward/North Dade to present this research to their current parent support groups either virtually or in person, reaching out to local Miami Dade County elementary schools to present this information in their weekly newsletters to families via the visual abstract and to reach out to various Miami Dade

County youth sports leagues, including Howard Palmetto Baseball, Palmetto Bay Knights soccer and flag football, Pinecrest Premier soccer club, Aqua Kids swim team and the South Dade YMCA to ask permission to present this information at a parent meeting.

On a larger scale, the executive summary and visual abstract listed above in Chapter II will be utilized for a submission for ADDitude magazine, which is distributed worldwide online and in print to subscribers. ADDitude is a valuable resource for parents, families, and individuals who deal with ADHD daily. Additionally, a presentation at the state and national SHAPE America conferences could be submitted. My goal with disseminating my results to larger ADHD organizations is to reach more parents than just the study participants to offer them guidance and education on the possibilities of positive sports experiences for their children with ADHD. In the next year I plan to continue this research and will interview additional participants to add to the current data and seek a peer-reviewed publication to distribute the final results.

Professionally, I want to continue this research further and dissect the information to look deeper at the factors that contribute to the sports experiences of children with ADHD. With this additional information, I hope to create a pamphlet or presentation on the sports experiences of children with ADHD. I want to partner with CHADD to add educational materials to their parent support programs to aid and educate parents who may be selecting a sport for their child with ADHD. I hope that this partnership with CHADD can help further develop this research and a collaboration with ADHD coaches, sports coaches and other professionals can continue to improve the sports world for children with ADHD.

In the future, the results of this study can be utilized to create, present, and distribute a coaching education presentation to individuals who are coaching children that may have ADHD or other neurodiversity in youth athletic leagues, whether it is AYSO, Little League or other

national or local organization. Information to be covered would include strategies for getting and maintaining the attention of athletes in positive, calming ways and positive reinforcement techniques to encourage the athletes. The information could be distributed through a flyer or pamphlet handed to coaches at a welcome meeting, a series of short videos with strategies for getting the attention of players, redirecting players and encouragement for all players, or a presentation to the coaches during an assigned training. These coaching strategies could also be included in future coaching education mobile applications, college textbooks, college coaching courses and coaching certifications. The participants in this study made it clear that they feel very strongly about the need for improving the knowledge of coaches to improve the sports experiences for their children with ADHD. By creating and distributing materials and educating coaches about helpful strategies for working with neurodiverse athletes, this can be possible.

REFERENCES

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*. (5th ed.). American Psychiatric Association; WorldCat.org. <http://0-dsm.psychiatryonline.org.www.consuls.org/>
- Benzing, V. (2020). Exergaming-a physical activity intervention to benefit children with ADHD? (PhD Academy Award). *British Journal of Sports Medicine*, 54(15), 930–931. WorldCat.org. <https://doi.org/10.1136/bjsports-2019-101920>
- Bustamante EE, Davis CL, Frazier SL, Rusch D, Fogg LF, Atkins MS, & Marquez DX. (2016). Randomized Controlled Trial of Exercise for ADHD and Disruptive Behavior Disorders. *Medicine and Science in Sports and Exercise*, 48(7), 1397–1407. WorldCat.org. <https://doi.org/10.1249/MSS.0000000000000891>
- Caye, A., Swanson, J. M., Coghill, D., & Rohde, L. A. (2019). Treatment strategies for ADHD: an evidence-based guide to select optimal treatment. *Molecular Psychiatry*, 24(3), 390–408. WorldCat.org. <https://doi.org/10.1038/s41380-018-0116-3>
- Cerrillo-Urbina, A. J., Garcia-Hermoso, A., Sanchez-Lopez, M., Pardo-Guijarro, M. J., Santos Gomez, J. L., & Martinez-Vizcaino, V. (2015). The effects of physical exercise in children with attention deficit hyperactivity disorder: A systematic review and meta-analysis of randomized control trials. *Child Care, Health and Development*, 41(6), 779–788. WorldCat.org. <https://doi.org/10.1111/cch.12255>
- Choi J.W., Han D.H., Kang K.D., Jung H.Y., & Renshaw P.F. (2015). Aerobic exercise and attention deficit hyperactivity disorder: Brain research. *Medicine and Science in Sports and Exercise*, 47(1), 33–39. WorldCat.org. <https://doi.org/10.1249/MSS.0000000000000373>

- Cornelius, C., Fedewa, A. L., & Ahn, S. (2017). The Effect of Physical Activity on Children with ADHD: A Quantitative Review of the Literature. *Journal of Applied School Psychology*, 33(2), 136–170. WorldCat.org.
- Davis, C. C., Claudius, M., Palinkas, L. A., Wong, J. B., & Leslie, L. K. (2012). Putting Families in the Center: Family Perspectives on Decision Making and ADHD and Implications for ADHD Care. *Journal of Attention Disorders*, 16(8), 675–684. WorldCat.org.
- Den Heijer AE, Groen Y, Tucha L, Fuermaier AB, Koerts J, Lange KW, Thome J, & Tucha O. (2017). Sweat it out? The effects of physical exercise on cognition and behavior in children and adults with ADHD: a systematic literature review. *Journal of Neural Transmission (Vienna, Austria : 1996)*, 124(Suppl 1), 3–26. WorldCat.org.
<https://doi.org/10.1007/s00702-016-1593-7>
- Dolgun, G., Savaşer, S., & Yazgan, Y. (2014). Determining the correlation between quality of life and self-concept in children with attention deficit/hyperactivity disorder. *Journal of Psychiatric and Mental Health Nursing*, 21(7), 601–608. WorldCat.org.
<https://doi.org/10.1111/jpm.12114>
- Efron, D., Bryson, H., Lycett, K., & Sciberras, E. (2016). Children referred for evaluation for ADHD: comorbidity profiles and characteristics associated with a positive diagnosis. *Child Care, Health and Development*, 42(5), 718–724. WorldCat.org.
<https://doi.org/10.1111/cch.12364>
- Feldman, H. M., & Reiff, M. I. (2014). Attention Deficit–Hyperactivity Disorder in Children and Adolescents. *The New England Journal of Medicine*, 370(9), 838–846. WorldCat.org.
<https://doi.org/10.1056/NEJMcp1307215>

- Gapin, J. I., & Etnier, J. L. (2014). Parental perceptions of the effects of exercise on behavior in children and adolescents with ADHD. *Journal of Sport and Health Science*, 3(4), 320–325. WorldCat.org. <https://doi.org/10.1016/j.jshs.2013.03.002>
- Gapin, J. I., Labban, J. D., & Etnier, J. L. (2011). The effects of physical activity on attention deficit hyperactivity disorder symptoms: The evidence. *Preventive Medicine*, 52. WorldCat.org.
- Gawrilow C, Stadler G, Langguth N, Naumann A, & Boeck A. (2016). Physical Activity, Affect, and Cognition in Children With Symptoms of ADHD. *Journal of Attention Disorders*, 20(2), 151–162. WorldCat.org. <https://doi.org/10.1177/1087054713493318>
- Grassmann V, Alves MV, Santos-Galduróz RF, & Galduróz JC. (2017). Possible Cognitive Benefits of Acute Physical Exercise in Children With ADHD. *Journal of Attention Disorders*, 21(5), 367–371. WorldCat.org. <https://doi.org/10.1177/1087054714526041>
- Hoza, B., Martin, C. P., Pirog, A., & Shoulberg, E. K. (2016). Using Physical Activity to Manage ADHD Symptoms: The State of the Evidence. *Current Psychiatry Reports*, 18(12), 1–7. WorldCat.org. <https://doi.org/10.1007/s11920-016-0749-3>
- Johnson, R. C., & Rosen, L. A. (2000). Sports behavior of ADHD children. *Journal of Attention Disorders*, 4(3), 150–160. WorldCat.org. <https://doi.org/10.1177/108705470000400302>
- Kang, K. D., Choi, J. W., Kang, S. G., & Han, D. H. (2011). Sports Therapy for Attention, Cognitions and Sociality. *Int J Sports Med*, 32(12), 953–959. WorldCat.org. <https://doi.org/10.1055/s-0031-1283175>
- Keller, G. C. (1987). *Naturalistic inquiry*: by Yvonna S. Lincoln and Egon G. Guba. Beverly Hills, CA: Sage Publications, 1985, 391 pp. *Evaluation and Program Planning*, 10(2), 184–185. WorldCat.org. [https://doi.org/10.1016/0149-7189\(87\)90056-5](https://doi.org/10.1016/0149-7189(87)90056-5)

- Kiluk BD, Weden S, & Culotta VP. (2009). Sport participation and anxiety in children with ADHD. *Journal of Attention Disorders*, 12(6), 499–506. WorldCat.org.
<https://doi.org/10.1177/1087054708320400>
- Kumar, K., Sharma, R., Mehra, A., Saini, L., Shah, R., & Sharma, A. (2020). Quality of life, adjustment, and associative comorbid conditions in children diagnosed with attention deficit hyperactivity disorder: A comparative study. *Industrial Psychiatry Journal*, 29(1), 123. WorldCat.org. https://doi.org/10.4103/ipj.ipj_119_20
- Lee H, Causgrove Dunn J, & Holt NL. (2014). Youth sport experiences of individuals with attention deficit/hyperactivity disorder. *Adapted Physical Activity Quarterly: APAQ*, 31(4), 343–361. WorldCat.org. <https://doi.org/10.1123/apaq.2014-0142>
- Lincoln, YS. & Guba, EG. (1985). *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications.
- Lufi, D., & Parish-Plass, J. (2011). Sport-Based Group Therapy Program for Boys with ADHD or with Other Behavioral Disorders. *Child & Family Behavior Therapy*, 33(3), 217. WorldCat.org.
- Mercurio LY, Amanullah S, Gill N, & Gjelsvik A. (2019). Children With ADHD Engage in Less Physical Activity. *Journal of Attention Disorders*, 1087054719887789. WorldCat.org.
<https://doi.org/10.1177/1087054719887789>
- Mowlem, F., Agnew-Blais, J., Taylor, E., & Asherson, P. (2019). Do different factors influence whether girls versus boys meet ADHD diagnostic criteria? Sex differences among children with high ADHD symptoms. *Psychiatry Research*, 272, 765–773. WorldCat.org.
<https://doi.org/10.1016/j.psychres.2018.12.128>
- Mowlem, F. D., Rosenqvist, M. A., Martin, J., Lichtenstein, P., Asherson, P., & Larsson, H. (2019). Sex differences in predicting ADHD clinical diagnosis and pharmacological

- treatment. *European Child & Adolescent Psychiatry*, 28(4), 481–489. WorldCat.org.
<https://doi.org/10.1007/s00787-018-1211-3>
- Neudecker C, Mewes N, Reimers AK, & Woll A. (2019). Exercise Interventions in Children and Adolescents With ADHD: A Systematic Review. *Journal of Attention Disorders*, 23(4), 307–324. WorldCat.org. <https://doi.org/10.1177/1087054715584053>
- Ng, Q. X., Ho, C. Y. X., Chan, H. W., Yong, B. Z. J., & Yeo, W.-S. (2017). Managing childhood and adolescent attention-deficit/hyperactivity disorder (ADHD) with exercise: A systematic review. *Complementary Therapies in Medicine*, 34, 123–128. WorldCat.org.
<https://doi.org/10.1016/j.ctim.2017.08.018>
- O’connor, B. C., Fabiano, G. A., Waschbusch, D. A., Belin, P. J., Gnagy, E. M., Pelham, W. E., Greiner, A. R., & Roemmich, J. N. (2014). Effects of a Summer Treatment Program on Functional Sports Outcomes in Young Children with ADHD. *Journal of Abnormal Child Psychology*, 42(6), 1005–1017. WorldCat.org. <https://doi.org/10.1007/s10802-013-9830-0>
- Pagani LS, Harbec MJ, Fortin G, & Barnett TA. (2020). Childhood exercise as medicine: Extracurricular sport diminishes subsequent ADHD symptoms. *Preventive Medicine*, 141, 106256. WorldCat.org. <https://doi.org/10.1016/j.ypmed.2020.106256>
- Patton, M.Q., (2015). *Qualitative research and evaluation methods: Integrating theory and practice*. (4th ed.). Sage publications.
- Pope, C. (2006). Interpretive perspectives in physical education research. In D. KirkD. Macdonald, & M. O'Sullivan *Handbook of physical education* (pp. 21-36). SAGE Publications Ltd, <https://www.doi.org/10.4135/9781848608009.n2>
- Quesada D, Ahmed NU, Fennie KP, Gollub EL, & Ibrahimou B. (2018). A Review: Associations Between Attention-deficit/hyperactivity Disorder, Physical Activity, Medication Use,

- Eating Behaviors and Obesity in Children and Adolescents. *Archives of Psychiatric Nursing*, 32(3), 495–504. WorldCat.org. <https://doi.org/10.1016/j.apnu.2018.01.006>
- Ragnarsdottir, B., Hannesdottir, D. K., Halldorsson, F., & Njardvik, U. (2018). Gender and Age Differences in Social Skills Among Children with ADHD: Peer Problems and Prosocial Behavior. *Child & Family Behavior Therapy*, 40(4), 263–278. WorldCat.org. <https://doi.org/10.1080/07317107.2018.1522152>
- Ruiz-Goikoetxea, M., Cortese, S., Aznarez-Sanado, M., Magallón, S., Alvarez Zallo, N., Luis, E. O., de Castro-Manglano, P., Soutullo, C., & Arrondo, G. (2018). Risk of unintentional injuries in children and adolescents with ADHD and the impact of ADHD medications: A systematic review and meta-analysis. *Neuroscience and Biobehavioral Reviews*, 84, 63–71. WorldCat.org. <https://doi.org/10.1016/j.neubiorev.2017.11.007>
- Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructionism. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2 ed., pp. 189-213). SAGE Publishing.
- Suarez-Manzano, S., Ruiz-Ariza, A., De La Torre-Cruz, M., & Martínez-López, E. J. (2018). Acute and chronic effect of physical activity on cognition and behaviour in young people with ADHD: A systematic review of intervention studies. *Research in Developmental Disabilities*, 77, 12–23. WorldCat.org. <https://doi.org/10.1016/j.ridd.2018.03.015>
- Tandon PS, Sasser T, Gonzalez ES, Whitlock KB, Christakis DA, & Stein MA. (2019). Physical Activity, Screen Time, and Sleep in Children With ADHD. *Journal of Physical Activity & Health*, 16(6), 416–422. WorldCat.org. <https://doi.org/10.1123/jpah.2018-0215>

U.S. Department of Health and Human Services. (2018). Physical Activity Guidelines for Americans, 2nd edition. https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf

Wolraich, M. L., Hagan, J. F., Allan, C., Chan, E., Davison, D., Earls, M., Evans, S. W., Flinn, S. K., Froehlich, T., Frost, J., Holbrook, J. R., Lehmann, C. U., Lessin, H. R., Okechukwu, K., Pierce, K. L., Winner, J. D., & Zurhellen, W. (2019). Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents.(From the American Academy of Pediatrics / Clinical Practice Guideline)(Report). *Pediatrics*, *144*(4), NA. WorldCat.org.

Ziereis, S., & Jansen, P. (2015). Effects of physical activity on executive function and motor performance in children with ADHD. *Research in Developmental Disabilities*, *38*, 181–191. WorldCat.org. <https://doi.org/10.1016/j.ridd.2014.12.005>

APPENDIX A: DEMOGRAPHIC SURVEY

1. What is your age?
2. What is your gender identity?
 - a. Male
 - b. Female
 - c. Other _____
3. What is your child's age?
4. What is your child's gender identity?
 - a. Male
 - b. Female
 - c. Other _____
5. What is your relationship to the child?
 - a. Mother
 - b. Father
 - c. Stepmother
 - d. Stepfather
 - e. Other _____
6. What is your ethnicity?
 - a. White/Caucasian
 - b. Black or African American
 - c. Native American or Alaska Native
 - d. Asian
 - e. Native Hawaiian or Pacific Islander
 - f. All that apply.
 - g. Other _____
7. Did a medical professional diagnose your child with ADHD?
 - a. Yes
 - b. No
8. If Yes, at what age was your child diagnosed? _____
9. Does your child have any additional diagnoses?
 - a. Autism
 - b. Oppositional Defiant Disorder
 - c. Dyslexia
 - d. Dysgraphia
 - e. Other _____
10. What are your child's main symptoms of ADHD? Select all that apply.
 - a. Hyperactivity
 - b. Impulsivity
 - c. Inattention

- d. Lack of social skills
 - e. Lack of emotional regulation
 - f. Lack of coordination
 - g. Constantly in motion
 - h. Fidgeting
 - i. Forgetful
 - j. Difficulty being patient
 - k. Depression
 - l. Anxiety
 - m. Other: _____
11. Is your child currently on medication for ADHD symptom management?
- a. Yes
 - b. No
12. If yes, is the medication Short Acting or Long Acting?
- a. Short Acting
 - b. Long Acting
13. Is your child currently participating in any other treatment for symptom management beyond medication?
- a. Yes
 - b. No
14. If so, please list what they are: _____ (examples: social skills training, individual therapy, OT, ABA therapy)
15. What treatment options have you tried to help your child manage their symptoms but no longer utilize? _____
16. Does your child currently participate in an organized sport?
- a. Yes
 - b. No
17. Does your child participate in more than one sport throughout the year?
- a. Yes
 - b. No
18. How many sports does your child participate in during the year?
- a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. More than 3
19. What sport(s) does your child currently participate in (please list them below)?

20. How long has your child participated in sports?
- a. Less than a year

- b. 1 year
 - c. 2 years
 - d. 3 years
 - e. More than 3 years
21. How many hours a week is your child involved with sports?
- a. 0-2
 - b. 3-5
 - c. 6-8
 - d. 9-10
 - e. Greater than 10
22. Do you inform your child's coach(es) that your child has ADHD?
- a. Yes
 - b. No
23. If yes, when do you inform the coach about your child's diagnosis?
- a. _____
24. Has your child played any sports previously that they no longer participate in?
- a. Yes
 - b. No
25. If so, what were they?

APPENDIX B: INDIVIDUAL INTERVIEW QUESTIONS

1. What made you decide as parents to choose to put your child in extracurricular sports?
2. What input did your child have into the extracurricular sport(s) they play or have played?
3. What extracurricular sports have you found to be most successful for your child with ADHD? What do you feel makes it successful? How long have they participated in this sport?
4. What extracurricular sports have you found to be unsuccessful for your child with ADHD? What do you feel made them unsuccessful?
5. Can you describe any remarkable or memorable positive experiences with extracurricular sports involving coaches, teammates, or other parents your child has experienced?
6. Can you describe any remarkable or memorable negative experiences with extracurricular sports involving coaches, teammates, or other parents your child has experienced?
7. Describe your child's symptoms of ADHD that are recognizable to you at home. (Are they impulsive, fidgety, defiant, inattentive, etc.?)
8. Describe any changes in these symptoms on days that your child participates in extracurricular sports?
9. When do you notice that the symptoms change (before or after the participation or both)?
10. How does your child behave while participating in their extracurricular sports? Please describe any recognizable ADHD behaviors you have noticed.
11. Do you notice that the symptoms in your child change if the activity is a practice vs a game? How so?
12. Do you notice any changes in your child's behavior if the game is won or lost? Can you provide more detail about that?

13. Overall, do you feel that participating in extracurricular sports has been beneficial or detrimental to your child with ADHD? Can you please give further detail about why you feel this way? Is there a specific event that has led you to feeling this way?
14. Do the coaches treat your child differently?
15. Do you feel your child stands out against their peers?
16. If you could improve the sports world for children with ADHD, what would you like to see happen?

APPENDIX C: RECRUITMENT SCRIPT

My name is Laura Turek, and I am a doctoral student in the Kinesiology department at the University of North Carolina at Greensboro. I am conducting a research study that will look at how the ADHD symptoms of children ages 7-12 are affected by sports participation. The specific purpose of my study is to examine the perceptions of parents on the benefits of participating in sports for their children diagnosed with ADHD. In addition, this study will seek to determine which sports parents perceive as the most beneficial for their children diagnosed with ADHD.

As a participant in this study, you will be asked to complete a demographic survey about your child's symptoms and participate in an individual interview. You will be asked questions about your child's ADHD symptoms, treatments, and sports participations. The survey is anticipated to take no more than 15 minutes and the individual interview is anticipated to last an hour and will be recorded through Zoom and stored in a secure location. Participation in this study is voluntary and no compensation will be offered. Your identity as a participant will remain confidential during and after the study. Participants in the study will not be named. Each participant will be assigned a pseudonym. No personally identifiable information will be used regarding study participants. Every effort will be made in any written report or presentation to maintain the confidentiality of personally identifiable information.

If you have questions or would like to participate, please contact me at lmturek@uncg.edu or 305-992-2240. Thank you for your consideration.

APPENDIX D: CODEBOOK

RQ1: What are parents' perspectives regarding sport participation for their child with ADHD?

RQ2: What sports have parents found to be most successful at helping children with ADHD manage their symptoms?

Theme	Subtheme	Examples
<ul style="list-style-type: none"> • Improvements 	Confidence	<ul style="list-style-type: none"> • he's quite intelligent and wants to be the leader. And um! There's a like natural opportunity for that to happen for him in like he has this like sports. So can um really excel on doing that without being told to like, stop or be quiet, because he's taking the role of the leader, and it's like respected by it. So I think it can be really good for self esteem(9) • It improves her self confidence because she is very good. And for a while that was the only thing she was she felt good about herself, for was her athletic ability. And you know, because school work is a challenge, and when she can do well and swim, and you know that's just huge for her. Every kid has to have some kind of win, and for her sports have been it (8) • so sports for him is the thing he can be really proud of. And I think he needs that.(14) • it gives him a sense of being good at something (14) • Well, like, I said that was the one thing that she kind of got some confidence from (18) • So I think that the soccer and his success with that has been huge for his confidence this year (11) • I think that's what creates um the confidence and the the ability and the the you know, liking it.(4) • I think it's a great boost to her self-esteem, because she's very good at basketball.And I think she takes great pride in doing better.(7) • I think it helped boosted her self-esteem. She feels like it's something that she enjoys, and that she's good at (1) • she's become more self-assured.(1) • some some of these kids are just stars out there like they. That's what That's their their their super power (3) • Um, I think that that's really good for him um to hear, and he it. It builds him up because he hears

		<p>a lot of what he's doing wrong all day. Yeah, he's he's not on task, or he's not listening, or he's rough housing, or you know there's there's a lot of correction there, and so you can just see it on his face when somebody is like. Oh, my gosh! That that was amazing! Good job, and he's like, Whoa! Whoa! What? And then he lights up. Probably right. Yeah. Yeah. So I think I think just that. Um reassurance and that positive um reinforcement with soccer is is good, (5)</p> <ul style="list-style-type: none"> • so he's moving up, and so that's always motivating for him where some other sports there was no progress(4) • You know a parents definitely got to recognize when it's the wrong sport, because it it definitely was detrimental uh confidence, wise, and and many other reasons. When it's the wrong sport. When it's the right sport. It's worth everything when it's the wrong sport. It's certainly it's not good (4)
	Responsible	<ul style="list-style-type: none"> • so he's more motivated to do things he needs to do because he wants to go, you know, to practice or or whatever. So he's like more motivated to get the things done that he needs to get done definitely(15) • I feel like she's start to learn discipline within herself, because she knows I can't swing it every ball because i'm going to strike out, and I don't want to, because I want to get on base(12) • She's become more responsible in that way. Um, we're not needing to tell her. Oh, did you bring your towel, did you? She is now bringing all those things. Um! When we get there she goes right to where she needs to be (1) • She's become more responsible (1) • it has also rules um just being able to um have structure um being responsible. Um, That's one thing you know. We've tried this year. Now that he's ten. You have to pack your bag. You have to have your things. You show up to practice. You don't have them. Well, I guess you can't get on the ice that you don't blame me because you left your states at home. That's your job. So um really shifting over um responsibilities. Um has been one of the big ones.(2)
	Calm	<ul style="list-style-type: none"> • Every night we drive home from practice. They'd just be like happy and calmer and like, Yeah, It's just like easy going attitude kind of thing (17) • So I do find that he. I think he is calmer.(13) • She knows she's calmer.(12) • Well, she says she has said that it makes her feel calm, and I would say yes, but that also does

		<p>help for her to pay attention to getting her homework done because she is anticipating this other function that she has to do. : It's not perfect. But yeah, I would say that it has improved her ability and completing tasks because she knows she has another task ahead (1)</p> <ul style="list-style-type: none"> • I feel like he can function socially. Function in a conversation better after the practice. And then I actually communicate feelings and thoughts and ways that he like really shuts down and can at other times (9) • he can come home and take a shower after a practice that very late in the evening without getting like that extreme dysregulation(9) • And then, when we have soccer practice he'll go, and he'll run and run and run, for you know the hour that practices, and he'll come home, and he'll be kind of even keel and be able to sit, and you know, watch a show or get ready for bed. Um. We see a lot less of a fight at bedtime on practice days. He's, he's tired, and he's ready to go to bed, which is nice.(5) • Maybe she's less distracted and that feels calm (1) • she says, with swimming, that it actually helps her focus, which is something that she I didn't even probe her on. She just said, Oh, I really like swimming. I noticed that I just feel more calm, and I can focus more (1) • She will be a little bit more focused and calm after practice or a meet. But that's because she's had such strenuous physical activity.(8) • We weren't swimming laps or anything, and I mean, totally calm, totally peaceful(17) • he's more respectful and he's more, a He has more discipline, and he listens whatever he is being um told to do (10)
	Sleep	<ul style="list-style-type: none"> • It tires him out so on the night he is practice, or that he has a game. He sleeps better because he is more physically exhausted (14) • Probably one other symptom that I didn't mention is if we don't have physical activity. Sleep is a nightmare, and it's been that way, since he was like eight months old. Um! Where he just lays there wide awake, bouncing around um, though. a huge part of us doing multiple activities at any one time. Is that not that he has to do it every single day, but I know if at least four days a week, that we seem to be able to get to sleep by nine Pm. (11) • And then, obviously the fact that it's a very intense on the body, if you do it correctly, and it

		<p>really also just kind of like tires um tires them out, which always helps calm the brain as well(4)</p> <ul style="list-style-type: none"> • He'll be kind of even keel and be able to sit, and you know, watch a show or get ready for bed. Um. We see a lot less of a fight at bedtime on practice days. He's, he's tired, and he's ready to go to bed, which is nice. (5) • I could just use tonight as an example, and absolutely there's a difference. He was happy, He he probably is in bed right now, and it wasn't a struggle. It was just like he he got in there No problem. (4) • I think that it's that she definitely um exerts a certain amount of energy. I think she sleeps better because of that. (1) • They sleep better (3) • Uh. So I think that movement, I think the exercise, I think just the activity of following instructions Uh, I think maybe is meant to be fatiguing for, and as a result she's a little tired, and when she is tired she is just a little bit more um obedient. (7)
	Focus	<ul style="list-style-type: none"> • There are days where he will need if he is busy with that and doesn't even realize he won't even ask for Tv or anything like that. So he's just so busy (2) • He is more focused during games for sure Um when he is off the field (5) • I don't see him being distracted. He's very focused when he's playing.(19)
	Enjoyment	<ul style="list-style-type: none"> • beneficial when we found the right sport (4) • they remark that he's always got a smile on his face like every time he's playing he's just got this grin on his face like he's truly enjoying himself out there. (19) • I think he enjoys it the most, and he's the most gifted at it. I mean he's he enjoys playing flag football in the backyard, and he enjoys playing basketball, but he's really really good at soccer. So I think he likes to pursue it because it's fun, and he's good at it.(19) • So I think, for him like it's really important for him to have that part of his day, because the school day is super stressful and it's they're in a very academic, you know, academically rigorous school. So I feel like it's really important to balance it out with doing something that he loves.(19) • There was no enjoyment. He didn't: like that was the biggest thing that was a fight to get him to go (11) • Karate, he really enjoyed the six weeks (11)

		<ul style="list-style-type: none"> • She wants to do everything like. If I could put her in every single sport and let her play them, she would be so thrilled with that.(8) • And then we saw that she actually really enjoyed it, and um was really good at it, and she It was just something that she continued to enjoy. So we just kept pursuing it. (1) • She enjoys it. It's something that she is happy about um. Those are the things that make it beneficial in my eyes. (1) • Naturally she loves basketball swimming, you know things like that. Her motor coordination is really good, and she enjoys it. So that's that's one of the reasons I wanted to enroll her in different types of sports.(7) • She really likes being on a team.(1) • Well for him, I think what he's enjoyed them also has been the flag football because he picked it. He he wanted to do it. It was something he's really into football right now, (3) • i'm grateful um he he does enjoy the flag. he's passionate about it. (3) • It gives them more to talk about it(3) • He was really into it. He wanted to be there. He enjoyed the practices he enjoyed, the games he handled, losing pretty well, which I was worried about. (3) • He always comes out happy, no matter which way it is, he's never disappointed.(4) • I think that uh being on a sport gives them purpose on something like um motivation and willing to do something in life (10) • I don't know he just loves it. it's what he truly ended up sticking with (4) • knowing that it's just him in that pool. It's, you know. I think that's what creates um the confidence and the the ability and the the you know, liking it (4) • And gymnastics has just kind of happened to work out just because she is, you know, kind of in an environment where one she's doing something she really likes. So she wants to be on it.(18) • She doesn't necessarily want to be on a stage performing (1)
	Socialization	<ul style="list-style-type: none"> • her friends were doing gymnastics, So we decided to try gymnastics. (18) • I think the things that get him excited are when his friends are participating in something, and he sees that that it's a fun thing, and everybody is excited to do it.(17) • He just developed friendships, you know, outside of school. Um. So I think that's very good (15)

		<ul style="list-style-type: none"> • I think it is. Uh it has allowed him to create um. You know he's working on a social skills. He's crowds with kids that he wouldn't, you know, necessarily be friends with uh in school, you know, because maybe they don't go to the same school. Uh they're still in the same school district, but not necessarily in the same school (15) • I feel like It's helped her learn discipline within herself. Learn to work with her peers and learn how to respond to criticism (12) • We chose to start sports and looked at soccer um for that reason, just to get him integrated and get allow him to start to meet kids (11) • Oh, beneficial .. um social skills learning how to work with them(11). • Yeah, he really really, though he has like a little bit of trouble, I think, with was like social communication you know, like naturally a little delayed. Um, he really he just seeks it out. He just wants constant interaction with other kids (9) • So from an early age we just wanted that extra piece of developing friendships and having somewhere to go to play with other children having that socialization (2) • I think it's good for his social development at the end (10) • lacrosse and hockey just became those two things where some of his friends that he knew we're doing, and we. He just liked it, and we kept with it.(2) • for him to socialize for him, you know, to be healthy,(3) • I just think well for us in our particular situation, I think definitely the social skills piece learning to interact with others. (2) • They need it. They need to be social.(3) • I feel like he's a little behind socially because of the Adhd um, and this has really helped with his interpersonal skills and relating to other kids, and being like working together with other kids and and things like that.(5) • They need to feel like they're part of the team like They belong (3) • Yeah, they made plenty of good friends through playing it.(9) • He was struggling socially because of his behaviors due to his ADHD, so I felt like getting him in sports, and could get him in a little bit of a smaller group and make some friends and um, and just, you know, make connections that way with similar interests. (13) • And I think it's been beneficial, because, like kids on his baseball team, have seen his outbursts, have seen his meltdown, and I think it's been
--	--	---

		<p>helpful for them to understand and learn and not judge. And you'll see some kids like when he's upset and like It's all right, Miles. It's okay, like, you know, they'll try to be encouraging to him. So I think it's beneficial for others also to have kids like that in sports for them to learn that you know not every kids the same(13)</p> <ul style="list-style-type: none"> • I guess it's more um expectations. Put on him because he is playing at um a higher level with kids that are two years older than him. So yeah, the maturity piece for him has been very difficult this year. Um do you say? Physical maturity, social maturity, social maturity for sure. Um. And it was very noticeable right from the beginning. Um! Most of the kids are twelve and eleven years old, and he's a younger ten. (2)
<ul style="list-style-type: none"> • Having an Outlet 	<p>Movement</p>	<ul style="list-style-type: none"> • gymnastics is stations, and there's not that many kids in the class, so they're constantly rotating Station A to Station B. So she's constantly doing an activity (18) • Yeah, that like that is really what I want for him to get out of sports and to like not be sitting all day. Um, because he is totally a kid who would sit with a board game in a or a book all day.(16) • I think basketball has been the better sport for him, because like when he's on the court, he is constantly moving back and forth and back and forth, and it just is good for him (14) • If the classroom was structured a little differently, and he could move a little more while he was being academically working. I think he would be a better student (14) • because there was motion in his body. His brain could focus.(11) • And then we see a lot of just just movement. He has a really hard time sitting still. Um even eating dinner, you know his feet are going, or he's shifting in his chair, or he's getting up to get water coming back down. When he watches Tv. Um, he can focus on Tv and and video games for a long time, but he's still moving. His body is still moving.(5) • um baseball, where you're just sitting there waiting for a ball, and it just is boring so he needs that high pace (2) • They need the movement (3) • because these kids need sports. They need to move.(3) • They say that swimming rewires the brain in some sort of way for Adhd, because it's one arm, left arm, right on left, right foot. It's just the constant motion, and the way that the strokes are

		<p>performed, that it does something with the brain.(4)</p> <ul style="list-style-type: none"> • it fills the need of that Adhd kid who is looking for, you know, constant instant gratification, and and and so on and so forth. You just get in the pool. It happens quick. A race is also quick you know. A soccer game lasts a long time to. Finally, when this is like you. You swim across the pool and you done(4) • I think it helps regulate her, you know, because she doesn't have a choice. You have to pay attention when you're in water, especially since you can't stand in most of the water she's in. You have to pay attention. You have to keep your body moving and that constant movement for her works out really, really well.(8) • yeah, she it wasn't enough movement.(8) • That was when I realized why baseball wasn't a good sport for him, because as long as he was like waiting for his turn it back, he was good, and when he was batting and running, but being in the outfield like no focus whatsoever on anything that was going on with the game. So, not learning anything about being out in the field because he just couldn't stay focused there wasn't enough literally physical movement for him to get anything out of baseball, and that's when I went back to soccer because it was constantly moving. (14) • He has since moved to basketball. Um! Another sport that is constantly moving.(14) • I also think that his brain retains things better when he's moving, so like he can get sports. He understands it. Um! Because he's moving constantly, and even when he's not playing the sport, he's bouncing the basketball nonstop at the house. So just the movement piece is something that I feel resonates with him.(14)
	Energy	<ul style="list-style-type: none"> • I was looking for a way to channel that energy for a little boy who like to just go, go, go, and everything was throwing and catching and kicking, you know, even sort of before he knew that was sports related.(14) • But he has not needed medication, and I think a huge part of that is that he can get his wiggles out inappropriate ways (11) • The research showed that uh getting kids with Adhd into a sport would help them tremendously uh burning off energy and just getting them um on a team and active all just to stimulate all the extra parts of his little brain (17) • He is always high energy(9)

		<ul style="list-style-type: none"> • Because it it is a healthy outlet for her to get her energy out,(8) • Um, I he's obviously very active, and I felt like he needed: uh it. I feel like it helps with social um skills as well as kind of exerting some of that energy that he has. (15) • I was looking for a way to channel that energy for a little boy who like to just go, go, go, and everything was throwing and catching and kicking, you know, even sort of before he knew that was sports related.(14) • So I just felt like he needed an outlet to get off some of that energy, especially after school. Um, instead of being cooped up at the house. (13) • We were looking for an outlet for energy. (5) • Sports, extracurricular sports, particular um to try to get out some of the energy to see if that would help him focus and um interact, you know, with other kids a little bit better. (6) • Initially, it was for him to burn off his energy. Uh um had a lot a lot of energy, and um. Also it We know that movement helps helps people with Adhd (3) • yeah, good exercise, and I think she's challenging her energy. So she gets to burn off, you know. Let off some steam(7) • It would just be less rigid for the little guys. Um, I I think it. It just needs to be more about: play and companionship and and energy and exercise Um, I think there's a lot of focus on the rules and winning and losing. And um, you know we we. This is your position. This is what you're supposed to do, and and all of that like I get that with sports. It's important. But I feel like at this age. It's more about: getting out there having fun learning some skills,: and just not be quite as rigid(5)
	No Judgment	<ul style="list-style-type: none"> • because Teddy's is like: more anxiety based that that's like a good release for him like you can tell that's like his happy place.(19) • I uh honestly, gymnastics is probably the only place that nobody's ever complained about her behavior.(18) • uh, there is a little bit of fun with the practice we have no points involved. So uh, in terms of her taking it seriously. Of course she takes the games very seriously.(7) • because they are both physically challenging um, and where you don't, there's sort of no judgment where you fall. You land, you get hit up against the board. There's no really judgment that you played the play wrong, and you know it's It's a

		<p>high impact game, and you fall. You get up and you keep going.(2)</p> <ul style="list-style-type: none"> • But you know just really just trying to see if we could get him into something consistently that he um could do without being a disruption to everybody else.(6) • That makes sense to him. It's not, and he's not getting in trouble for doing it right like at home, when he's throwing things around and bouncing the ball. It's like, Please stop bouncing the ball in the house. Could you please um, or like stop doing that right, because we still have the space. And there are this things that you shouldn't do in the house um right like um. Whereas when he's doing a sports, he's met to be physical. That is the thing that he's doing, and so he's not getting yelled at for doing it. He's getting praised for doing it.(14) • honestly, the one year that he played football. I feel like he did very well. Uh, I feel like that was a good sport for him. Um, just because emotions bothered up, and I and I felt like he played the line, so he kind of, and and he even said it was a way to kind of like, really some aggression, and he kind of like put it all out there on the field, which is good, but it's also not good if he's getting concussion.(15) • I think the the of energy. I think it. It gives him an outlet to run and play and be silly, and not have to worry about getting in trouble for rough housing, and he just he can really just be wide open (5)
<ul style="list-style-type: none"> • It's the coaches 		<ul style="list-style-type: none"> • So our coaches came up with a plan, and he only had to swim for thirty, twenty, or thirty minutes for practice, and then they, you know, he, they would release them from practice, and he could, just trying to do his own thing for the next little half of it.(17) • it's exciting to have a coach on your side like that (17) • I would say that his coaches definitely um are super adaptable, and you know, give him a lot of lead way to be his little self. So um, that's super helpful.(17) • the cricket coach was very sensitive to that, and like really did um, you know It's the first time I really watched Jesse experience the compliment sandwich, right? And so like that seemed to work really well for him (16) • All the coaches that he had were very supportive, and they really worked with him(15) • Coach Blair remembered when she first saw him, and was very specific about his skills, that I just

		<p>saw his space light up and like came over, and he was just like so excited like to see that someone else had noticed something about him.(14)</p> <ul style="list-style-type: none"> • I think that's why Karate is so good because his instructors are just in tune to help with that. And they just like they they're really good with him.(13) • They found, I think, the other two coaches that we've been with have found ways to relate to her (12) • Her new Coach this season actually has adhd herself. Se relates very well with Addison, and she'll pick up on something that I might overlook, because i'm so used to it (12) • They were just really patient (6) • So we're going to try swimming again, because that was, you know, the most um beneficial in terms of his participation and the coaching.(6) • She has a really good swim coach this year. He's very sweet uh very reassuring to her. Um! He doesn't seem impatient.(1) • When you find a coach that can kinda understand what Adhd is and how it works, and how to um get along with kids and how to, you know, really get down to their level is the main thing for any sport (2) • Master Graph came and spoke to him and told him that that this was a safe place, that that who Who was it that spoke to you that way, because we need to help that person, because that person has a problem, not you. Um, You're great, you know, like he built him up, and he actually called me on the phone and spoke to me and everything.(3) • There's an opportunity to receive a lot of positive feedback and it really depends on the coach(9) • He wasn't like as good as all the players that I remember this coach. He was so understandable, and he was really good with him(10) • The coach was yelling at me, and I couldn't do anything Um! And he like walked off the field, never wanting to play again, and my heart broke (11) • It was very um cumbersome, and it was not age appropriate um, and they were goofing off. I mean their nine year old boys, you know. So when they're waiting here in line they're fooling around. And he pointed my son out, and as well I wouldn't pick any of these, especially that one over there. All he does is fool around (2) • There was a day, a couple of days last week when he went to a game and his coach bench
--	--	---

		<p>them just because he was not listening, not paying attention just not there (2).</p> <ul style="list-style-type: none"> • are you gonna pay attention? I I want you to. Do you know, you want to play this position, But I need you to pay attention like, not mean about it, but also not like Super, which is fine with me, because that's real life.(3) • Why can't you do that? What's wrong with you? Why can't you, you know, pay attention just just constant not understanding.(4) • We are on a team, and, as you know, with ADHD she, their mind might be over there. You know it's everywhere, and she at practices would just kind of be all over the place, because there was a practice. It wasn't a game, so she wasn't giving it her all, and the coach would say, have you taken your medicine?(12) • But yes, I know that there have been times, especially with gymnastics where the instructor um kind of at some point just ignored him to focus on other kids. Um, you know, and I can see the reason why at times. Um, if he's not doing what he's supposed to do, and the other kids are Um, he's going to kind of focus on the other kids (6) • The second time we tried it he did one lesson, and the coach unfortunately disciplined him in a way that he really couldn't handle, and he never went back. (17) • I guess finding ways to keep keep them physically occupied like the whole time. They're in practice you know. Like, for example, i'm thinking back to the T ball practice like finding ways to engage all the kids the whole time instead of making them wait. Because I don't feel like they're getting enough out of that.(19) • But I I just like to make the teachers a coaches, or whatever aware that he has challenges that not all kids have, and you know not to label him as a kid that a bad kid or a kid that doesn't care or not paying attention. You know that it's a legit challenge he has, and you know. So that's my number one um goal, and letting anybody that has any relationship with him know that he has challenges. It's not always going to be easy. (15) • A little more coach awareness would be fabulous, just having even some information that we would be able to hand over to them.(17) • Just maybe maybe have coaches being a little more um educated in the struggles that kids with Adhd have. (15) • It would be great if coaches and other parents uh understanding of neurodiversity. You know it shouldn't be just the coaches. It should be other parents, too. Yeah, youknow, if a child is not um.
--	--	--

		<p>So just overall. I think the community needs to be a little bit more understanding of kids who are neurodiverse. It's not. It's not just adhd right. It's all of these other special needs (7)</p> <ul style="list-style-type: none"> • I would love for anyone who chooses to be a coach to have to Who are not neurotypical, whether it's Adhd or autism, or whatever that neuro difference looks like and know that it is just important for those kids to feel a part of things that it is for others for those kids who are neurotypical (14) • So I just, I think just knowledge, more knowledge of what it is, what it looks like, and some strategies, just as teachers to have some strategies in your back pocket,(13) • Just for coaches to have more knowledge about it and strategies in their back pocket, because I think if it wasn't for me there to help advocate for for miles like and work with the coach, I I don't think I his coach wouldn't know what to probably do.Um. So just for in the sports world, for coaches and instructors, or of what it is, what it can look like, and you know that it does vary and have some strategies and stuff, and then, just to be consistent, and I, and to be fair again to all the kids like that, because I think I can see some coaches definitely treating those because kids differently, and that's not. That's not helpful like they, you know they're still needs to maintain the same standard. (13) • It's the coaches. I think. Educating anybody within a organization.(12) • Overall understanding of adults and other children, that not everybody is the same um that not everybody's brains and bodies. And uh, you know everybody doesn't work the same, and that that's okay. I think just overall acceptance of not mattering what those differences are, but that people are people. (11) • If you're speaking to coaching education, Maybe I think there needs to be less stress and pressure in childhood sports across the board. I don't like this model of early specialization joining the clubs, start prepping for your college sports when you're set like that that whole model. Yeah, it's all all the kids I completely that would be My number one ask is like, Can we just play our rec sports until we're in middle school? • I would like to see part of safe sports uh, mostly all of the coaches have to take a safe sport course is. Have a section there on Edd. Um How to talk to kids, how to um find their strengths and utilize those to their advantage as a coach. Um, I feel like there's a lot that Adhd kids can give to a
--	--	---

		<p>team, but it's also the coach needs to know how to get that.(2)</p> <ul style="list-style-type: none"> • I think that it's beneficial to have two kinds of coaches, I guess, is the best way to put it, or like a coach and a helper. Um, you know, for those kids that are neuro divergent um, much smaller without having to pay the arm the leg for like one on one um, because it it's not just about one on one. It's, you know it. It is about trying to, you know. Socialize, too. (6) • it just really really just having people aware of of what that means. You know just awareness. I mean. It's not: for people to make special exceptions for him all the time. But just hey, listen. This guy might need a little more, you know. A little redirection a little like. Just keep an eye on him like that kind of a thing, but not a free pass, and I don't want a free pass, but maybe just a little understanding: I mean knowledge.(3) • It really just comes down to the coach you know, just like in school. It comes down to the teacher. It comes down to the coach it comes down to the person in charge. You know we need more understanding and kindness and um: training for the coaches who are working with kids of all different abilities: to accommodate. Not that they need special attention, or, you know, but just understand, like maybe the kid who is afraid to touch a ball, but it's time to pay sock or has sensory issues. Maybe the kid who can't follow, you know, has processing issues, and so, instead of yelling and screaming, and you know it's just. I feel that: I understand they are there to do a sports: um, and I understand that there's all different levels of ability. But then maybe there should be specific groups of kids with certain abilities that have the understanding, and they're not put with the coaches who are looking to make your child the next you know, Jose Canseco (4) • that Adhd is prevalent in sports. It's why most of these kids play sports, and I think that they should have some sort of awareness, even if it's not training of Hey, This is what's going on with this kid. Maybe you need to coach him a little bit differently, screaming in his face, is not going to work,(8)
	<p>Get looked down upon</p>	<ul style="list-style-type: none"> • There's definitely some families that um give you the side eye, and totally, you know, like I can tell that they just like they don't. They don't want their kids swimming next to my kid.(17) • They don't want them treated different. So I think that, and that that sucks when that stigma comes into any kid with a disability, they're such stigmas. But I try to be very open and communicate about

		<p>it, because I don't want there to be a stigma (13)...</p> <ul style="list-style-type: none"> • I never wanted it to be something that what was looked down upon, or that she was called out specifically for um, so I never! I have not. I have not told them. (8)
<ul style="list-style-type: none"> • Just too much 		<ul style="list-style-type: none"> • I think it was the combination of that he wasn't interested, and there was just too much and too many kids. And just I don't think he where to look. (6) • He couldn't sit still long enough, and he was distracting the other teammates(15) • So right there's just too much if there's too much downtime like he disengages fairly quickly.(14) • he gets too excited(10) • We tried sports on our own, such as um soccer and t ball, but because of uh processing issues it was very hard to um follow a ball and follow kids and all the moving pieces that are you know, that. Come with that. Those types of sports, all the different moving pieces on the field. It's like sensory overload. You know it's and people yelling off on the side, and people yelling his name and other people's names. It's like, Where do you look first. And what do you do first? (4) • Soccer, because it was just so many moving pieces! Yes,so many moving pieces. But it's I mean you could just imagine once the ball is kicked to you, it's kicking the ball and running and looking up. I mean all those things, and watching other people and trying to go for a goal. I mean that's just mind blowing for him.(4) • She was glazing over at the verbal instruction which that's a lot of ballet um, and she could not stand there and be still that she'd get on the ground she'd roll over. She'd roll around. (8) • There was just too much waiting (18) • She she she got really um over stimulated like she tried a class, and I think the like the yelling (18) • 8 kids in front of him are practicing batting, and he's just waiting.(19) • There was too much downtime in that sport for him. He would lose interest(19) • it was just kind of boring for him, chasing a ball, and like kicking it, and like it was more um skills, and he was just bored with it. Um! And really the same thing with baseball is too much waiting.(2) • There's a lot of standing around and swimming. There's a lot of waiting um in t ball. You're in the in the dug out a lot, and um he he was an outfielder, which I didn't even think about until you said something. Um, yeah, yeah, There's a

		<p>lot of standing around, and a lot of time to get lost in your own thoughts (5)</p> <ul style="list-style-type: none"> • Ballet Because she could not stand still for that long.it wasn't enough movement.(8) • There was just too much waiting (18) • There was too much downtime in that sport for him. He would lose interest. (19)
	Symptoms	<ul style="list-style-type: none"> • Um, just really not in control of her body in space. Um just very little like body awareness, you know, just like slamming into stuff and um constant movement constantly on the move(18) • He does hit his brother a lot he like cannot, especially as the night goes on, (17) • There's definitely some like emotional outbursts lately (17) • So he both will hyper, focus on what he's doing and then get really irritable if anybody interrupts that (16) • you know he sees his. He'll see something or think of something, and he just like runs with it. It's and doesn't even think about the consequences of what could happen until it's kind of too late, you know, like they're things that he's done that, you know. Um, you can tell. He didn't think of that through.(15) • And then another one is moving from one task to another(12) • the hyperactivity is again like he like he eats standing up. Um! He does his homework. Standing up, he moves around constantly Um! He's always got something in his hand that he is moving, whether it is a basketball or a balloon that he's popping around, or a tennis ball or something. He is always a part of his body is always moving. He does not like to sit down.(14) • And then focus. So that's that's really the kind of the forgetfulness there forgetfulness. And I think it's partly the focus, too.(11) • So like his anxiety is, and it, it transcends into sleep like he can't fall asleep without knowing exactly where I am when he wakes up. If i'm not there, he gets very anxious (14) • he is really hard with transitions (10) • He starts like invading spaces to other kids and touching and not paying attention.(10) • Probably it's emotional regulation. That's hard for him to contro(10) • I think a major symptom that he deals with is emotional dysregulation (9) • impatience with sister especially(9) • during swim practice she will lose count of the lap she's on She will zone out a little bit if he's talking too much, and they're on the side or hanging on

		<p>to a lane rope like Sophie is going to zone out um, you know, in She missed a heat in her swimming this weekend because she just wasn't where she needed to be, (8)</p> <ul style="list-style-type: none"> • a constant reminders, constant lists for her. We have to keep a strict routine, which, after several years of this, we have. But bedtime is like the worst for this child. It's. Have you brushed your teeth? Have you brushed your teeth? Did you take your medicine? We can't forget to take our medicine. Did you wash your face? Did you do this, did you? It's just constant reminders,(8) • she? Um! Interrupts she. Um it because she has like a short attention span (1) • If it pops in her head, she is to say it it's like well hold on. Someone is speaking, you know. So Um! She's interruptive, fidgety(1) • I would say she's easily distracted (1) • So uh staying on task and uh staying focused is a little bit of a challenge (7) • with regard to the uh impulse control. If we are doing school work, you know, early morning she has a tendency to just dive in into any activity, you know, without stepping back and reading the instructions fully.(7) • You see the immature (3) • It's very hard to motivate him once he comes home (2) • He likes regimented schedules, but he also likes his time to himself (2) • just slow when he says needs to be fast and fast when he needs to be slow(3) • So after school collapse for sure, right? So like we have the hyper focus on his tablet to the exclusion of everything else. And then, if the tablet, the timer goes off, it's taken away, complete meltdown,(6) • Um, because he's bouncing and he's jumping. He's going here, and he's there(6) • The sensitivity. It's the rejection sensitivity which then kind of leads the other kids to be like, Oh, we don't want to play with Cooper. But at other times he's like super fun and like, and when we, when I pick him up from school like there are many a days where other kids who I don't even know they're just kids from school always like, Hey, Cooper? By Cooper, you know, and they're always like Cooper Cooper and i'm like, okay, Well, clearly, he's: popular in school.(6) • It's more just the impulsivity of like you know. If his brother does something to annoy him, which I totally understand, you know, to automatically just, or he'll say something really nasty that he doesn't need to say (3)
--	--	--

		<ul style="list-style-type: none"> • Lack of flexibility. Um And then just some emotional regulation. (3) • It's still at that moment, so it you know It's a lot of fighting. It's a lot of arguing. It's a lot of him yelling and screaming. It's. It's a lot of you know, even at twelve. Throwing himself on the floor, and it just an utter meltdown(4) • we like to say that we all live, you know, captive under his moods, you know. (4) • His words come out faster than his brain good process, and so he'll say things that maybe aren't as kind (5) • the biggest symptom we see with him is impulsivity.(5) • It's just it is a lot of arguing. Um. Sometimes it just comes across as defiance um, and can make for some struggling(13) • Sometimes he lays on the floor. refusing to speak to me.Sometimes he'll cry(19)
<ul style="list-style-type: none"> • Meds change things 		<ul style="list-style-type: none"> • I mean if there's a day when she when she gets her medication she's golden. She's fine until probably: six o'clock, thirty or so at night. (18) • I think that there might be some changes if he was medicated (17) • I think it has been beneficial overall, I think, because this is Adhd is so well managed with medication.(16) • Not when he is on his medication. (16) • I mean when he's not medicated things like he will just pick fights for the sake of picking fights with his brothers. Um like he can't stop himself.(16) • And yeah, um, I think when she does have her medicine right now on our team. She's our full time catcher, so she's very good at her job back there, but sometimes she just bypass what the coaches on her as far as what play to make, you know, and she'll do the right thing. So then she stands out doing that She takes it in her own hands. She really does(12) • I would probably say more beneficial Um, he's on medication. Okay, I think not being on medication made things really unpleasant(6) • when he's doing the sports, it's hard to say like, If so, we do have an evening medication that we can give him a short acting small dose, and we do do that for certain activities. Um, it's like scouts and stuff (6) • So the way I would answer, That is, it depends on what time: because again it depends on what time his medication is worn off. Um! If he has a game late at night he will come back all amped

		<p>up. Um, and not want to go to bed. And um, eh? Just like bouncing off the walls. (2)</p> <ul style="list-style-type: none">• Luckily her games are in the morning, you know, when her meds have kicked in. You know it's like, you know, ten, thirty, or It's like ten o'clock to eleven o'clock. It's her prime time So everything is in her favor.(7)• So we we want him to actually like, learn techniques, and so hopefully, that will be better with an afternoon medication.(6)• And there was another coach went up to my husband and was like this: this can't be part of the team like this. Can't go on. And so I actually took that opportunity to talk to that coach the next time and disclose some information about what's going on, you know, like you know, like seven Pm. On a Thursday, is a very hard time for a child with emotional Disregulation, and adhd, and so you may not see their best in it.(9)• Why, you might see a different child on Thursday or Saturday.(9)
--	--	--

ADHD AND KIDS SPORTS

What Do Parents Think?



100%

All 19 participants with children aged 7- 12 years old with ADHD felt that participating in sports was beneficial for their child with ADHD.

AS A RESULT OF SPORTS PARTICIPATION, PARENTS REPORTED THEIR CHILD:



experienced better sleep

felt calmer



improved self-confidence and social skills

WHY?

"Every kid has to have some kind of win, and for her, sports have been it."



"It's a good release for him, like you can tell that's like his happy place."



"He has not needed medication, and I think a huge part of that is that he can get his wiggles out in appropriate ways,"



Successful Sports

"She says, with swimming, that it actually helps her focus."



Unsuccessful Sports

"You're just sitting there waiting for a ball, and it just is boring."



Parents want coaches who are:

- Encouraging
- Supportive
- Knowledgeable about ADHD



Future creation and facilitation of education programs about ADHD and how it can impact athletes for coaches and personnel in youth sports

© Laura Turek 2023



APPENDIX F: PARTICIPANT EMAIL

Hello,

Thank you so much for participating in my dissertation research study in the Fall of 2022. I have successfully completed my research and wanted to share the results with you as promised. Below you will find a brief summary as well as an attachment with a visual abstract which displays the most important information from the study. I would also like to invite you to participate in a virtual discussion to go over the results and so I can answer any questions you may have about the results and future directions. I have two dates available for the virtual meetings. The meeting should not last more than 30 minutes. I will take the first 5 minutes presenting the results of the study and then open the meeting for questions and discussion.

Please reply with which date works best for you and I can send you a Zoom meeting link. The same information will be provided at both meetings. I am just providing two dates to accommodate schedules. Again, thank you for your participation in my research study and I look forward to talking with you at the virtual discussion.

Sincerely,

Dr. Laura Turek