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# ADHD Does not Define me: Parent-Child Reported Strengths in Children with ADHD

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ADHD Does not Define me: Parent-Child Reported Strengths in Children with ADHD

by

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A THESIS

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## Abstract

A strength-based approach to childhood attention-deficit/hyperactivity disorder (ADHD) research highlights children's positive attributes that can support their areas of difficulty (Climie et al., 2015). However, research on perceptions of a child's positive attributes is understudied. Specifically, there is little research that examines strength-based perceptions of children with ADHD, and only one known article addresses parent perceptions of their children with ADHD (Mastoras et al., 2018). As such, this study analyzed parent and child reported strengths in children with ADHD. Parent and child reported strengths were measured using the Behavioral and Emotional Rating Scale – 2<sup>nd</sup> edition, Parent Form and Child Form (BERS-2; Epstein, 2004). Results indicated that parents and children perceived strengths in the interpersonal, intrapersonal, and affective domains to be similar, falling in the Average range. However, children indicated their family involvement and school functioning fell within the Average range, whereas parents rated these domains in the Below Average range. Positive parental perspectives of their children may promote positive parent-child interactions and serve as an overall protective factor for children (Sabapathy et al., 2017) with ADHD. Additionally, parents and children categorized ADHD descriptions and attitudes towards ADHD, similarly. Domains which parents and children see as strengths should be utilized to support areas of weakness. Strength-based research for children with ADHD and positive interventions utilizing strengths, may benefit families with ADHD, as well as classroom teachers and school psychologists.

*Keywords:* Attention-Deficit/Hyperactivity Disorder, Self-Perception, Parent Perception, Strengths

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## **Preface**

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### List of Abbreviations

ADHD	Attention-Deficit/Hyperactivity Disorder
ADHD-C	Attention-Deficit/Hyperactivity Disorder- Predominantly Combined
ADHD-HI	Attention-Deficit/Hyperactivity Disorder- Predominantly Hyperactive Impulsive
ADHD-IA	Attention-Deficit/Hyperactivity Disorder- Predominantly Inattentive
APA	American Psychiatric Association
ASD	Autism Spectrum Disorder
BERS-2	Behavioral and Emotional Rating Scale – Second Edition
BERS-2 PR	Behavioral and Emotional Rating Scale – Second Edition, Parent Report
BERS-2 CR	Behavioral and Emotional Rating Scale – Second Edition, Child Report
CBCL	Child Behavior Check List
CFREB	Conjoint Faculties Research Ethics Board
CNS	Central Nervous System
Conners-3 PR	Conners Rating Scale – 3 <sup>rd</sup> Edition, Parent Report
DMDD	Disruptive Mood Dysregulation Disorder
DSM-5-TR	Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition, Text Revision
EF	Executive Functioning
FSIQ-2	Full scale Intelligence Quotient – Two Subtest Form
ICD-11	International Classification of Diseases, eleventh edition
ODD	Oppositional Defiant Disorder
PERMA	Positive emotions, Engagement, Relationships, Meaning, and Achievement
PIB	Positive Illusory Bias
QOL	Quality of Life
SDQ	Strengths and Difficulties Questionnaire
SLD	Specific Learning Disorder
WAIS-IV	Wechsler Adult Intelligence Scale, Fourth Edition
WASI-II	Wechsler Abbreviated Scale of Intelligence – Second Edition
WISC-IV	Wechsler Intelligence Scale for Children, Fourth Edition

## Chapter 1: Introduction

Positive psychology is a branch of psychology that explores the beneficial aspects of human behaviours (Seligman & Csikszentmihalyi, 2000). Positive psychology addresses how multiple domains, such as positive emotions, engagement, relationships, meaning, and achievement (collectively acronymized as PERMA), affect an individual's feeling of fulfillment in life (Park, 2015). In positive psychology, a strength-based focus on research, theory, and practice has arisen. Strength-based research and theory highlight how a person's strengths can support their PERMA or positive experiences (Norrish & Vella-Brodrick, 2009). In a school setting, emphasizing and educating students about positive psychological principles may be beneficial to one's functioning. For example, teachers who taught their elementary aged students to think using positive mindsets (e.g., optimism), reported more effective social-emotional development in their students (Benoit & Gabola, 2021). Additionally, positive psychological interventions at school have documented encouraging results. A two-year intervention led by teachers taught school-aged youth about the principles of positive psychology (e.g., gratitude; Shoshani & Steinmetz, 2014). Significant decreases in anxiety and depressive symptoms as well as increases in self-esteem, optimism, and self-efficacy were reported by students post-intervention (Shoshani & Steinmetz, 2014).

One population that may benefit from additional focus through a strength-based lens is children with attention-deficit/hyperactivity disorder (ADHD). ADHD is often viewed negatively, with a focus on how the symptoms of ADHD prevent or disrupt an individual's functioning (Hai & Climie, 2021). However, emerging literature encourages the perception of ADHD to be altered to one that includes emphasizing one's positive traits, in conjunction with

areas of need. Hopefully, this altered perception promotes the development of effective strength-based skills and strategies for children with ADHD (Climie et al., 2015).

There is limited research that analyzes children with ADHD from a strength-based perspective. In this paper, a discussion of positive psychology and the strength-based ADHD framework is presented. Following, a description of ADHD and self and parent-reported strengths of ADHD are discussed. Together, the present study aimed to examine parent-child identified strengths in children with ADHD. Specifically, the domains of interpersonal strengths, functioning in and at school, affective strength, intrapersonal strength, and family involvement will be explored.

The scope of the study is limited to recruiting 35 children with ADHD and their participating parent. Children will be between the ages of nine to 12. Interested families will contact the researchers university email account. This recruitment period will last for a maximum of 12 months and will end when either 35 families have been recruited or the 12 months have passed. Children and parents will complete a number of measures regarding children's strengths and will describe ADHD using up to three words.

## Chapter 2: Literature Review

### Attention-Deficit/Hyperactivity Disorder

Attention-deficit/hyperactivity disorder (ADHD) is a neurodevelopmental disorder which presents challenges with inattention, hyperactivity, and/or impulsivity (American Psychiatric Association [APA], 2022). Symptoms of ADHD are developmentally inappropriate and impair one's functioning (APA, 2022).

#### *Prevalence*

The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision* (DSM-5-TR; APA, 2022) approximates that 1 in 20 (5%) school-aged children are diagnosed with ADHD; however, variations in prevalence rates for children and adolescents with ADHD range from 5.3% to 7.1% (ADHD Institute, 2017). Variations of prevalence may be due to (but are not limited to) gender, age, societal norms, or geographical location. Globally, estimates range from 2.2% to 11.9% depending on geographical location and the age at which the assessment is conducted (Danielson et al., 2018). Approximately 50% of children diagnosed with ADHD have symptoms that persist into adulthood that continue to impair functioning, resulting in an adulthood prevalence rate of 2.5% (Brieler et al., 2020).

#### *Diagnostic Symptom Presentations*

ADHD is composed of developmentally inappropriate inattentive, hyperactive, and impulsive behaviours. Functional impairments, such as inability to stay on task, lack of attentional ability, or high distractibility, commonly impact the child's home life, academic performance, and/or social relationships (Barkley & Russel, 2014). The extent to which the symptoms impact functioning differs due to the severity of the individual diagnosis; diagnoses can be classified as mild (few symptoms with few impairments), moderate (more

symptoms/impairments than mild, but less than severe), or severe (most or all symptoms with major impairment to functioning; APA, 2022). Determining the symptom severity is fundamental, as symptom severity is linked to child and adult outcomes. For example, childhood ADHD severity may be associated with maternal ADHD severity (Efron et al., 2018). More severe maternal ADHD was associated with more severe child ADHD, greater functional impairment, and lower quality of life. Further, adult outcomes were related to ADHD childhood severity and demographic factors such as socioeconomic status (SES), where children with greater symptom severity and lower SES reported more adverse outcomes (Hechtman et al., 2017).

### ***ADHD Diagnosis***

To be diagnosed with ADHD, six or more symptoms outlined in the DSM-5-TR must be present for a minimum of six months before the age of 12 years (APA, 2022). Symptoms must impair functioning in multiple settings (e.g., school, home, work; APA, 2022). Individuals diagnosed with ADHD are categorized into one of three presentation types based on their symptoms.

### ***ADHD Presentation Types***

There are three presentation types associated with ADHD: 1. Inattentive (ADHD-IA) presentation, 2. Hyperactive/Impulsive (ADHD-HI) presentation, and 3. Combined presentation (ADHD-C). Behaviours associated with ADHD-IA may include forgetfulness and absentmindedness (APA, 2022). An ADHD-IA presentation indicates that the individual has six or more symptoms of inattention but less than six symptoms of ADHD-HI. Behaviours of the ADHD-HI presentation may include excessive and inappropriate motor movements, inability to sit still, and excessive and inappropriate talking. An ADHD-HI presentation indicates that the

diagnosed individual has six or more symptoms of hyperactivity/impulsivity but less than six symptoms of ADHD-IA. A combined presentation of ADHD is identified if an individual meets the criteria for both ADHD-IA and ADHD-HI (APA, 2022).

### ***Etiology***

The cause of ADHD is attributed to both genetic and environmental factors (Falvo & Holland, 2018; Nunez-Jaramillo et al., 2021). However, genes and environmental factors do not work independently; both contribute to ADHD symptoms. Park et al. (2014) approximated that 75% of the inheritance of ADHD was due to genetics, while 25% was associated with environmental factors. Neurologically, ADHD is associated with atypical neural development (e.g., atypical neurogenesis, myelination; Nunez-Jaramillo et al., 2021). Further, structural and functional brain abnormalities which support attention and cognitive processing are said to be involved in ADHD (Shaw, 2015). Environmental settings can impact ADHD prenatally, with the development of the central nervous system (CNS) in the gestational and perinatal stages (Nunez-Jaramillo et al., 2021). For example, premature birth, which is associated with alterations in neurogenesis, often occurs in children diagnosed with ADHD. Other prenatal influences, such as perinatal hypoxia, malnutrition, high sucrose consumption, pesticide exposure, and heavy metal exposure are associated with an increased risk of ADHD (Nunez-Jaramillo et al., 2021).

**ADHD and Age.** ADHD is typically diagnosed in childhood or adolescence and may persist into adulthood (APA, 2022). Children may be suspected of having ADHD if they display developmentally inappropriate levels of hyperactivity, impulsivity, and/or inattention. For example, school-aged children must be developmentally ready to meet the demands of increased attention; however, some children struggle to meet school demands as a consequence of their ADHD symptoms (e.g., inability to follow directions).

**Early Life.** Parents may observe symptoms associated with ADHD in early childhood (APA, 2022). Atypical and less effective brain development (e.g., reduced caudate volumes in basal ganglia) may contribute to higher activity levels, difficulties with self-regulation, and lessened cognitive flexibility (Aretouli, 2019; Meeuwssen et al., 2019). However, it is challenging to distinguish between typical and atypical behaviours associated with ADHD before approximately four years of age. Children in preschool often display high levels of inattentive and/or hyperactive behaviour as a natural part of their developmental stage (Aretouli, 2019). Further, there is significant variability in the severity of symptoms and developmental trajectories of preschool-aged children (O'Neill et al., 2017). Those children whose symptoms remain severe and impair functioning in later school years (e.g., elementary) may provide more concrete evidence for an ADHD diagnosis.

Despite the challenges associated with distinguishing typically developing behaviours from ADHD symptoms, preschool screeners and diagnoses may be warranted with children displaying severe behaviours as young as three years of age (Davis et al., 2019). Cognitive deficits such as decreased executive functioning (e.g., response inhibition), working memory, and mental flexibility may be present in preschool, but do not warrant a diagnosis until they are explored later in life (Aretouli, 2019).

**Elementary School Years.** ADHD is most commonly diagnosed during the elementary school years, as symptoms of ADHD become more prominent and significantly impair daily functioning (APA, 2022). Approximately 5-7% of school-aged children are diagnosed with ADHD (Arnett, 2015). Inattention and hyperactivity/impulsivity interfere with one's academic performance and are not conducive to a structured school environment (Aretouli et al., 2019). Inattentive symptoms, such as being easily distracted or off task are often more evident at this

stage as classroom demands increase (Halperin & Marks, 2019). Failure to listen to instructions or complete assignments, inappropriate restlessness, excessive talking, or intruding on others are prevalent ADHD symptoms that interfere with classroom functioning (Chang et al., 2020).

**Adolescence and Adulthood.** ADHD symptomology is relatively stable during adolescence; however, some symptom presentations or behaviours may increase or change with age (APA, 2022). For example, excess running or climbing as a young child may decrease, while feelings of fidgetiness, jitteriness, restlessness, or impatience may arise (APA, 2022). In adolescence, those with ADHD-IA presentation may demonstrate greater academic impairment, social withdrawal, or poor adaptive functioning skills, while those with ADHD-HI presentation may have greater peer conflict, disruptive behaviours, or injuries (Leopold et al., 2019). Although previous research indicates that ADHD-HI symptoms may decrease over the lifespan, adult ADHD-HI and ADHD-IA symptoms are still prevalent in 2.5% of the adult population (APA, 2022).

Approximately 47% of adults with ADHD meet criteria for a predominantly inattentive presentation, with more adult males diagnosed with ADHD than females (Brieler et al., 2020). In adulthood, motoric hyperactivity becomes less obvious, but difficulties with restlessness, inattention, poor planning, and impulsivity persist (APA, 2022). Additionally, impulsivity may remain problematic even when hyperactivity has diminished. Adulthood ADHD deficits are associated with financial difficulties, co-occurring disorders (e.g., anxiety, depression), relationship issues, unemployment, and poorer quality of life (Weyandt & DuPaul, 2008).

### ***Co-Occurring Disorders in ADHD***

Co-occurring disorders are common amongst individuals with ADHD. Disorders that most commonly co-occur include autism spectrum disorder (ASD), oppositional defiant disorder



(ODD), conduct disorder, bipolar disorder, depression and anxiety disorders, tic disorder and obsessive-compulsive disorder (Reale et al., 2017). However, co-occurring disorders may differ as a function of the presentation type, as ODD is more likely to co-occur with a combined ADHD presentation (50% prevalence rate) than an inattentive presentation (25% prevalence rate; APA, 2022). Specific learning disorders (SLDs) also commonly co-occur with ADHD (25-40%; Reale et al., 2017). Approximately 45% of children with ADHD have an SLD in reading, mathematics, or spelling. Children with ADHD may also have disruptive mood dysregulation disorder (DMDD), but this is less common (APA, 2022). Social problems or sleep disturbances may be more prevalent in children with ADHD. Adult ADHD comorbidities may include intermittent explosive disorder, substance use disorders, or antisocial or other personality disorders (APA, 2022). Co-occurring disorders may exacerbate difficulties seen in children and adolescents with ADHD.

### ***Related Factors***

As previously noted, approximately 5% of school-aged children and 2.5% of adults have an ADHD diagnosis (APA, 2022). However, variations in the prevalence of ADHD may be a consequence of factors such as gender, cultural and/or societal norms, risk and prognostic factors, differential diagnoses, or geographical locations.

### ***Gender***

ADHD is diagnosed more frequently in males than females, with a ratio of approximately 2:1 in children and 1.6:1 in adults (APA, 2022). The presentation of ADHD may be impacted by the gender of the child. Arnett et al. (2015) reported that males were more likely to meet the criteria for all types of ADHD presentations (ADHD-IA, ADHD-HI, and ADHD-C) and had a greater number of overall ADHD symptoms than females. In comparison, Mowlem et al. (2019)

reported a significantly greater percentage of males met the criteria for a combined presentation of ADHD, while a greater percentage of females met the criteria for an inattentive presentation. Both females and males met a similar percentage of HI symptom criteria (Mowlem et al., 2019). Taken together, there is still debate regarding the presentation type and diagnosis ratio for males and females with ADHD.

### ***Culture***

ADHD prevalence rates may be associated with cultural understandings and attitudes surrounding children's behaviours (APA, 2022). For example, tolerance levels of hyperactive behaviour may vary cross-culturally (Gómez-Benito et al., 2015). If one's culture values the suppression of aggression, and hyperactive behaviour is interpreted as aggressive, parents and teachers of that culture may have a lower tolerance of hyperactive behaviour (Mann et al., 1992). Consequently, that culture is more likely to report hyperactive behaviours (Mann et al., 1992).

MacDonald et al. (2019) analyzed factors that may affect cross-cultural/country ratings of ADHD symptoms between Norway, Sweden, Australia, and the United States of America (USA). Results indicated that the reports of ADHD symptoms were significantly different across countries (MacDonald et al., 2019). Under or over-reporting symptoms were affected by how each country understood ADHD. For example, the USA and Australia had similar constructs of ADHD and both tended to over-report ADHD. Additionally, ratings of symptoms from kindergarten to grade two were dependent on the country reporting. In the USA and Australia, inattentive symptoms were reported consistently from kindergarten to grade two, whereas hyperactivity/impulsivity symptoms changed by grade two. However, Sweden and Norway showed the opposite pattern, where hyperactivity/impulsivity symptoms were consistently reported, whereas reports of inattentive symptoms changed by the end of the second grade.

Research has also included ethnicity and geographical location within cultural considerations. Gómez-Benito et al. (2015) examined ethnicity and found that Caucasian individuals reported the least amount ADHD diagnoses, whereas Hispanic American individuals had the greatest number of ADHD diagnoses. Siegel et al. (2015) also reported that Caucasian children were significantly less likely to receive an ADHD diagnosis than Black children.

Alternatively, cultural differences in ADHD research findings and diagnoses may be associated with the methodological procedures utilized, including ADHD assessment and diagnostic criteria. North American professionals tend to follow the DSM-5-TR (or other DSM version) criteria when making diagnostic decisions and providing post-assessment recommendations. DSM-5-TR criteria are used in research to understand participants' ADHD impairment/functioning as well as to confirm an ADHD diagnosis. However, European professionals tend to use the International Classification of Diseases, 11<sup>th</sup> edition (ICD-11) for their research endeavours, diagnostic decisions, and post-assessment recommendations. Consequently, different manuals and criteria may result in divergent conceptualizations of ADHD.

### **Positive Psychology**

Traditionally, human deficits and problems were highlighted with the focus primarily on psychopathology (Hopps-Wallis et al., 2016). In the 1950s, researchers questioned the traditional ways of analyzing human behaviour. Researchers proposed an alternative method of analyzing human behaviour by studying attributes and skills to promote success, known as realistic positivity (Hopps-Wallis et al., 2016). Realistic positivity was the foundation of a new branch of psychology, known as positive psychology. Positive psychology gained traction in the late 1990s, as it was heavily promoted by influential psychologist Martin Seligman. The premise

behind positive psychology was to analyze theory, research, and practice in a way that uncovers and emphasizes the positive and fulfilling components of human behaviour (Seligman & Csikszentmihalyi, 2000). Positive psychology is said to provide a more complete understanding of individuals by recognizing and analyzing the positive constructs that they possess (e.g., human strengths; Norrish & Vella-Brodrick, 2008). Although terms used to describe positive psychology have varied over time (e.g., well-being; flourishing), the underlying construct remains the same: to highlight the positives of human functioning (Seligman & Csikszentmihalyi, 2000). Positive psychology expands beyond flourishing and emphasizes concepts such as happiness, optimal functioning, and mental wellness (Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000).

According to Seligman, positive psychology is composed of five domains, including positive emotions, engagement, relationships, meaning, and achievement, collectively acronymized as PERMA (Park, 2015). *Positive emotions* relate to a feeling of overall satisfaction, such as feeling content. Importantly, positive emotions relate to one's subjective feelings and consciousness of their emotions (Kaczor, 2015). *Engagement* refers to the degree to which an individual partakes in activities where they feel connected to others. Engagement may also be referred to as flow, as the activities one engages in energize them and appeals to their strengths (Kaczor, 2015). Strengths can include characteristics such as creativity, leadership, or teamwork, supporting their optimum performance in the chosen activity (Kaczor, 2015). *Relationships* is the degree to which one feels that they are genuinely connected to others and supported by others. To feel happy, one needs to have positive and loving relationships in their life (Kaczor, 2015). *Meaning* refers to the understanding that one's life serves a purpose that is bigger than oneself and may include serving one's school, family, country, or religion.

*Achievement* and/or *Accomplishment* refers to feeling successful (e.g., winning a race) or mastering skills (e.g., learning a language; Park, 2015). Each component in PERMA contributes to the extent to which one feels overall happiness, referred to as flourishing or well-being (Kaczor, 2015). Specifically, to flourish or to achieve happiness means to subjectively satisfy each of the PERMA domains. Therefore, Seligman highlights that one's perception of the extent to which they believe they are flourishing is predicted by their perceived PERMA experiences (Park, 2015). In summary, positive psychology encompasses the study of PERMA, but flourishing encompasses one satisfying the PERMA domains to achieve their desired happiness.

Norrish and Vella-Brodrick (2009) reported that individuals who perceived themselves as flourishing experienced desirable outcomes and avoided undesirable outcomes, as opposed to those that reported moderate or poor mental health. This positive perception may be especially important in cases of disability or sickness, where, for example, a more optimistic perception of meaning in life is associated with better reported health-related quality of life (Park, 2015).

Other literature in positive psychology focuses on fostering social-emotional development in the school context (e.g., character strengths) to promote well-being (Benoit & Gabola, 2021). Character strengths are highlighted in the research as they are associated with various positive outcomes, including prosocial behaviour, competence, happiness and well-being, and the ability to cope with stress and trauma (Shoshani & Aviv, 2012). Further, childhood emotional development sets the foundation for later functioning and influences the onset of cognitive and social processes (Benoit & Gabola, 2021). For example, children who were taught by their teachers to be optimistic and to embody optimism while participating in activities, were less likely to develop concerns related to anxiety or depression (Benoit & Gabola, 2021).

Positive psychology is also utilized in child intervention settings. Shoshani and Steinmetz (2014) conducted a school-based year-long intervention to promote adolescents' mental health and well-being. They compared the pre-and post-measures of the intervention group to control youth. Children that participated in the intervention reported significant decreases in distress, anxiety, and depressive symptoms. Children also reported increased feelings of optimism, self-efficacy, and self-esteem post-intervention. Comparatively, youth who did not receive the intervention reported increased anxiety and depressive symptoms. Therefore, positive psychology interventions may be beneficial for school-aged youth (Shoshani & Steinmetz, 2014).

In child research, focusing on strengths instead of weaknesses/deficits reflects the positive psychological shift from gaps or deficiencies to competencies (Hopps-Wallis et al., 2016). Given that the overall goal of positive psychology is to encourage well-being and strengths to support functioning, it is a valuable perspective to implement when undertaking research. For children with ADHD, focusing on well-being and happiness may be beneficial. Further, utilizing strengths to enhance performance while engaging in challenging activities may support greater success for children with ADHD, thus enhancing their subjective view of themselves and increasing their potential for desirable outcomes.

### **Strength-Based Research: Children with ADHD**

Although ADHD is a prevalent disorder, it is commonly viewed as a disability that prevents or disrupts an individual from developing and achieving their full potential (Hai & Climie, 2021). Consequently, much of the literature to date conceptualizes ADHD using a deficit-based approach, describing traits or characteristics of ADHD as negative and providing recommendations on how these can be "fixed" (Climie et al., 2015). An alternative method to

understanding and analyzing ADHD, focusing on a strength-based or resilience approach, has emerged (e.g., Deault, 2010; Hai & Climie, 2021; Modesto-Lowe et al., 2011). Incorporating a strength-based approach in research may be particularly beneficial for children with ADHD as it focuses on how strengths enable children to thrive despite adversities in life (Verma & Sondhi, 2021). A strength-based approach recognizes and emphasizes how children have unique positive traits and characteristics and have successfully achieved various things in different areas of their lives (Climie et al., 2015). Instead of the goal being to decrease ADHD symptom severity (deficit-based), it is to encourage positive well-being, achievements that are appropriate for the child's unique circumstances, and optimistic outcomes (Climie et al., 2013; Verma & Sondhi, 2021). While not discounting individual weaknesses, strength-based approaches encourage success through utilizing personal strengths in skills and strategies to support children in areas that they may find difficult (Climie et al., 2015). In this study, strengths are defined as attributes that children with ADHD possess that allow them to be successful (Clifton et al., 2002).

There is limited research that explores the strength-based perceptions of children with ADHD. Only one strength-based article directly addressed perceptions of children with ADHD, analyzing the role of perceived social support in promoting children's emotional well-being (Mastoras et al., 2018). As such, more exploration is needed to understand how a strength-based approach to research and intervention can support children with ADHD. Specifically, research focused on both parent and child perspectives regarding ADHD is needed.

### **Parent-Reported Strengths**

Most of the previous research has used a deficit-based lens to analyze child psychopathology. Within this research, parents of children with ADHD often fill out rating scales or answer questions related to their child's deficits. Recurring experiences of answering

deficit-based questions can be challenging and discouraging for parents (Climie & Henley, 2016). Taking a strength-based approach to research by asking parents to answer questions based on their child's strengths can positively influence a parent's affect and outlook (Climie & Henley, 2016). Consequently, parents are less likely to fixate on negative comments or questions that often discourage positive thinking (Climie & Henley, 2016). Additionally, parents may have a more optimistic perspective of their child as a consequence of more positive thinking (Climie & Henley, 2016). Further, Sabapathy et al. (2017) reported that tailoring information that parents provide to address the positive characteristics of their children may be beneficial to their well-being. When parents discussed their children more positively, the children's outlooks were viewed by the parents more optimistically, resulting in improved parent well-being. Parent-child interactions may also improve as a result of positive parental perceptions, serving as a protective factor for the child and the parent-child dynamic (Sabapathy et al., 2017). Positive experiences may establish a foundation for future intervention plans to better support children's ADHD.

Although current research has established the potential benefits of reporting on strengths, there are very few articles that discuss child strengths from a parent's perspective. The only research found utilizing a parent's perspective focused on children with neurodevelopmental difficulties more broadly. As such, the focus of the next section will be on parent-reported strengths of children with neurodevelopmental conditions such as ASD and ADHD.

### **Parent Reported Strengths in Children with Neurodevelopmental Disabilities**

It is difficult, and indeed inappropriate, to presume that the parent-reported strengths of children with ADHD are identical to the strengths of children with ASD. Children's perceived strengths with ASD may be defined and identified differently than children with ADHD.

Additionally, it is important to note that there is considerable variability among children with the



same neurodevelopmental disability. For example, children with ADHD can present with varying symptomologies and functioning that affect their perceived outcomes and strengths. Therefore, each neurodivergent child has a unique profile that must be acknowledged and considered when analyzing strength-based research. Despite the differences in strengths that are perceived amongst and between neurodivergent groups, only four articles explored neurodivergent children's strengths. As such, multiple neurodevelopmental groups and their unique strengths are discussed.

Two studies with children that were either identified as having a developmental disability (not specified) or autism spectrum disorder (ASD) analyzed parent reports using five strength-based themes (personality characteristics, social personality characteristics, skills, cognitive functioning, and behavioural characteristics/coping mechanisms; Colavita et al., 2014; Sabapathy et al., 2017). In both studies, parents most frequently reported that their children's loving/caring/affectionate attitude towards people and animals, their happy demeanour, and their physical fitness to be amongst their greatest strengths. Both studies also reported their children's greatest social strengths to be their sociable, likeable, and humorous disposition. However, parents with children with a developmental disability were more likely than the parents of children with ASD to state that playfulness was a social strength of their child. In both studies, parents identified their children's strengths in recreational skills/hobbies, navigating technology, and speech/communication skills to be the strongest. Although not as many parents advocated for cognitive functioning and behavioural characteristics/coping mechanisms strengths in children with a developmental disability, both groups of parents highlighted that motivation, academic ability, cooperation, and adaptability were strengths. Parents of children with ASD also

emphasized their children's cognitive strengths, including memory, intelligence, and academics (Sabapathy et al., 2017).

Lench et al. (2013) analyzed two groups: parents that interpreted ADHD symptoms positively and parents who did not view ADHD positively. For simplicity in description, parents with positive ADHD mindsets will be referred to as "ADHD positive" and parents who viewed ADHD symptoms as negative will be known as "ADHD negative". Lench et al. (2013) reported that the ADHD positive parents had lower numbers of negative interactions and less intense discouragement and frustration with their child than ADHD negative parents. ADHD positive parents also perceived their children as more self-assured and more likely to experience positive future events than negative parents. Interestingly, the optimistic attitude of positive ADHD parents remained despite reporting disruptive behaviour, severe symptom severity, increased conflict, and increased negative emotional expression on behalf of the child. These parents also felt less discouraged and frustrated than the negative ADHD parents. Overall, parents who perceived their children's ADHD optimistically were more positive and supportive about their child's current state and future.

A recent study explored a strength-based perspective of resiliency in children with ADHD (Chan et al., 2022). According to the parents, 50% of the children with ADHD were reported as being just as resilient, and 2.8% of children with ADHD were perceived as being more resilient, than non-ADHD same-aged peers. Together, these studies provide insight into the unique and overlapping strengths children with neurodevelopmental disabilities may possess.

### **Child-Reported Strengths**

Much like parent-reported strengths, child-reported strengths are difficult to find within the literature due to various labels and umbrellas that describe strengths (Shoshani & Aviv,

2012). For example, research regarding children's self-control (Betts & Rotenberg, 2007), honesty and kindness (Zeece, 2009), optimism (Diesendruck & Lindenbaum, 2009), use of humour (Semrud-Clikeman & Glass, 2010), and leadership and prosocial actions (Grusec et al., 2002) may all be seen as strengths but may be described differently.

To provide initial insight into child-identified strengths, Williams and McGee (1991) analyzed 960 adolescents' self-perceptions of their strengths in relation to gender on a 22-item scale. Results indicated that boys were more likely to report themselves as popular, attractive, good at sport, and having lots of hobbies. Girls were more likely to report themselves as independent, kind, reliable, and affectionate. Beyond gender analyses, the majority of adolescents (over 70%) reported that their strengths included being kind, helpful, reliable, friendly, careful, trustworthy, easygoing, and humorous as well as being good with pets. Out of a total of 22 strengths, the majority of participants indicated they had at least 14 strengths. Similarly, Poole and Evans (1989) analyzed 1000 adolescent self-perceived competencies in various domains and reported on gender differences. Boys perceived greater strengths in academic skills, success, coping skills, health, and being outgoing, whereas the most prominent girl strength was being considerate. Overall, girls perceived themselves as less competent than boys. It is important to note that while these studies are over 30 years old, they still provide meaningful insight into how children and adolescents perceived strengths.

Character strengths in positive psychology are described as positive traits that are reflected in one's feelings, thoughts, and behaviours (Steen et al., 2003). Character strengths frequently mentioned by youth included love, curiosity, kindness, creativity, and humour (Steen et al., 2003). Character strengths most related to happiness included love, hope, enthusiasm, and energy. More cognitively mature youth relayed more sophisticated character strengths, such as

open-mindedness, gratitude, forgiveness, modesty, and authenticity. Additional, but less frequently mentioned strengths included fairness, bravery, teamwork, social intelligence, self-regulation, perseverance, and love of learning.

Character strengths have also been compared to the Big Five personality traits, which is composed of extroversion, conscientiousness, agreeableness, openness, and neuroticism (Dametto & Noronha, 2019). Extroversion describes someone who is outgoing, energetic, talkative, and assertive. Conscientiousness refers to a person who is organized, responsible, persistent, and competent. Agreeableness is one who enjoys others and is kind, trustful, and generous. Openness includes those that are creative and curious, while neuroticism describes persistently negative individuals. Dametto and Noronha (2019) analyzed children and youths' thoughts, feelings, and behaviours regarding personality type and greatest associated strengths. Five domains of strengths were analyzed, including interpersonal strengths, temperance strengths, theological strengths, intellectual and leadership strengths, and judgement strengths. Reported strengths were correlated with the five personality types. Conscientiousness was highly correlated with strengths in persistence, love of learning, and leadership. Openness was highly associated with creativity. Agreeableness was strongly associated with kindness and higher levels of Neuroticism were associated with lower self-regulation. Extroversion was not highly correlated with any of the given strengths. Altogether, it is apparent that children possess a variety of strengths that should be acknowledged and celebrated.

### **Child-Reported Strengths in Children with Neurodevelopmental Disabilities**

The majority of the child-reported strengths literature has been analyzed within the ASD population. For example, in a qualitative study, Clark and Adams (2020) asked children with ASD three strength-based questions: "What do you like most about yourself?", "What are you

absolutely best at?” and “What do you enjoy the most?”. Children commonly identified they most liked that they were a good friend/person to be around and that they were good at particular things. They were absolutely best at physical activity and maths/science, and they most enjoyed technology and gaming and social interaction.

As there was no explicit research that could be found regarding self-identified strengths of children with ADHD, adults with ADHD will serve as a reference point for child research. Mahdi et al. (2017) analyzed ability and disability characteristics, as well as the barriers and facilitators to functioning for adults with ADHD. Overall, 71% of the participants indicated there were positives of ADHD. Strengths of having ADHD included high energy levels, the ability to hyper-focus, creativity, agreeableness, and willingness to assist others. For example, higher energy was related to physical advantages (easier to engage in physical activity) and personal achievements, such as facing demands and challenges (e.g., studying before exams). Through open-ended interviews, researchers defined six core themes and 19 sub-themes regarding the positive aspects of ADHD (Sedgwick et al., 2019). The six core themes included cognitive dynamism (CD; spontaneous thought and mental focus), courage (confronting fear and dealing with uncertainty), energy (internal experiences and capacity for action; meaning and purpose in life), humanity (social behaviour), resilience (coping mechanisms) and transcendence (admiration). Within CD were the sub-themes of divergent thinking, hyper-focus, creativity, and curiosity. Under courage were non-conformist, adventurousness, bravery, integrity, and persistence. Under energy were spirit, psychological, and physical. Humanity included social intelligence, humour, self-acceptance, and recognition of feelings. Resilience included self-regulation and sublimation. Lastly, transcendence included the subtheme of appreciation of beauty and excellence (Sedgwick et al., 2019). Overall, the strengths used to describe oneself as

a neurodivergent individual are extensive. Importantly, neurodivergent people are aware of and can identify their strengths and can appreciate their unique skills and abilities.

### **Congruence in Parent-Child Reports**

Research regarding congruence in parent-child reports is often analyzed using a deficit-based lens, where parents and their children report the children's symptoms of a disorder or negative behaviour. Strength-based congruence, or the level of agreement between parent-child reports has been minimally evaluated. As strengths provide a greater understanding of child development and adaptation (Trang & Yates, 2020), limited research in this area is surprising.

Cherry et al. (2020) analyzed the congruency between parent and child reported strengths at home, referred to as, "Strengths at Home" (e.g., "I show that I care about other people in my family"). Results indicated moderate congruence in reporting, suggesting some level of agreement. Thus, parents and their children are aware of and agree with some of the child's strengths at home. Beyond Strengths at Home, the children were asked to answer questions regarding eight additional strengths (Strengths at School, Strengths During Your Free Time, Strengths with Friends, Strengths from Knowing Myself, Strengths from Keeping Clean and Healthy, Strengths from Being Involved, Strengths from Your Faith and Culture, and Strengths from Your Goals and Dreams). Associations between parent ratings on the Strengths at Home scale and children's additional ratings were reported. Parent ratings of the child's Strengths at Home were associated with three child-specific domains: Strengths at School, Strengths with Friends, and Strengths from Your Goals and Dreams. As such, parents' perception of their children in the home may influence their children's social and academic skills, as well as their overall outlook. Alternatively, children may demonstrate behaviours in the home (e.g., studying)

that provides insight into how the children are performing, allowing parents to report more accurately.

Additionally, Liu et al. (2017) analyzed the congruence in parent-child reports on the Strengths and Difficulties Questionnaire (SDQ). Of the 25 items reported, nine items yielded moderate to perfect agreement, 15 items yielded fair to slight agreement, and one item was less than chance agreement. Therefore, parent-child reports may be similar across items on the SDQ. However, the results of this study must be interpreted with caution as the statistical values of each descriptive range (e.g., moderate to perfect) were not provided.

Lastly, Sointu and colleagues (2012) analyzed child-parent-teacher agreement ratings using the strength-based measure, BERS-2, with children who had or did not have special education support. The BERS-2 measures five domains of strengths, including Interpersonal Strength, Family Involvement, Intrapersonal Strength, School Functioning, and Affective Strength as well as the overall Strength Index score. Results indicated moderate agreement in ratings across the three parties for the overall strength index score. Thus, all parties were aware of and agreed upon some of the children's strengths. When children were separated into their special education or typical education groups, children's ratings were again compared to parent-teacher ratings. Parent-child-teacher ratings for children enrolled in special education were in greater agreement across all domains except for Intrapersonal Strength. It was hypothesized that ratings were more congruent for special education children as teachers spent significantly more time with their students, providing direct support, and teachers and parents met frequently to discuss the child's learning plan, which encompassed the students' strengths. Overall, the results of the study indicate that the BERS-2 yielded moderate agreement of the child's strengths between raters, in both special education and typical education circumstances. However, greater

agreement on strengths may be influenced by factors such as the amount of time spent with a child and the level of communication between parties. Although these studies provide a good preliminary understanding of the level of agreement across multiple parties on strength-based measures, more research is necessary.

### **Congruence in Parent-Child Reports with ADHD**

Galloway and Newman's (2017) meta-analysis examined parent-child agreement on a quality of life (QOL) measure in children with ADHD. Interestingly, a majority of the articles indicated disagreement between the child-parent reports on the child's QOL. Children indicated that their QOL was better than what their parents reported. However, only four of the 11 studies reported on the same QOL domains (physical health and psychosocial experiences: social, school, and emotional). In three of the four studies, parents and their children reported greater agreement on physical health than psychosocial health (social, school, and emotional experiences). Galloway and Newman (2017) hypothesized that physical health ratings may be closer as ADHD symptomatology may not affect physical health to the same extent as psychosocial health. These results align with previous work done by Klassen et al. (2006) where parents and their children with and without ADHD rated the children's health in eight domains (physical function, role/physical, bodily pain, general behaviour, mental health, self-esteem, general health, family activities, and family cohesion). Parent-child reports of children's health were similar for observable domains (e.g., physical function and bodily pain) and moderate for less observable domains (e.g., mental health and self-esteem).

Similarly, Al-Habib et al. (2019) reported that the consistency of parent-child ratings on QOL varied by the domain. Ratings were reported as good for physical functioning, moderate for emotional, school, and psychosocial functioning, and fair for social functioning. Children rated



themselves significantly better than their parents in the emotional, school, and psychosocial domains. However, the age of the child affected the consistency of ratings. Overall, children rated their QOL more favourably than their parents (Al-Habib et al., 2019).

Taken together, these studies demonstrate that there may be discrepancies between parent and child reporting in various domains with children with ADHD. As such, it is necessary to further explore the similarities and differences in reporting for parents and their children with ADHD to better understand unique perspectives and to analyze why discrepancies may occur.

### **Discrepancies between Parent-Child Ratings**

Previous research provides many hypotheses to understand the reasoning behind parent-child report discrepancies, including child's biases, parent's biases, inaccurate reporting, and/or the feasibility to report on the domain analyzed. Brener et al. (2003) explained that self-report inaccuracies may result because of the age discrepancies of the participants and their cognitive and/or social understandings and abilities. Cognitively, children and parents may comprehend, recall, retrieve information, and make decisions differently. Factors such as values and beliefs may influence the retrieval and decision-making process. Socially, factors such as environment or social desirability may affect ratings (Brener et al., 2003). Environmental factors such as privacy or confidentiality (e.g., presence of others), stigmatization, moral implications, or legalities may affect the accuracy of reporting (Brener et al., 2003). Further, the specific domain being rated may influence the level of parent-child agreement (Davis et al., 2007). For example, externalizing behaviours (such as physical activity level) are easier to observe than internalizing behaviours (Davis et al., 2007), and thus reports may be similar. Alternatively, children and adults may be reporting socially desirable responses (i.e., the tendency for people to report based on what they believe others will find favourable; Brener et al., 2003; van de Mortel, 2008). Other

factors such as one's culture, socioeconomic status, gender, quality of the parent-child relationship, and perception of the disorder may also contribute to discrepancies (Van Roy et al., 2010).

### **Discrepancies in Parent-Child Reporting in Children with ADHD**

One explanation for discrepancies in parent-child reporting in the ADHD literature is the Positive Illusory Bias (PIB). PIB is where children with ADHD rate themselves as more competent than they are, often resulting in higher ratings than their parents. In other words, PIB is when an individual overestimates their ability compared to their actual ability (Hoza et al., 2002). There is debate as to what purpose PIB serves for children with ADHD as well as if PIB applies as an overall view of one's competence, or if it is domain specific (e.g., academic, social, and/or behavioural; Hoza et al. 2004; McQuade et al. 2011). Alternatively, some research indicates that children with ADHD experience "the opposite" of PIB, in which they rate their abilities as lower than non-ADHD children. Factors such as domain, timeline, and context, contribute to the extent children overestimate their abilities (Fefer et al., 2018). However, there may be situations where children genuinely struggle to understand and acknowledge their competencies in various domains and are not actually attempting to present as more competent than they are (Fefer et al., 2018).

Additional factors affecting parent-child reporting in the ADHD literature include parental stress, psychopathology, and demographics. Parental stress may affect the tolerance a parent has for behaviours and may result in behaviours being deemed as more problematic than before the stressor occurred. Therefore, higher severity in reporting may be due to increased parental stress (Theule et al., 2010). Parental psychopathology may contribute to reporting as children with ADHD are more likely to have parents with a form of psychopathology (Galloway

& Newman, 2017). As ADHD is one of the most heritable psychopathologies children with ADHD are more likely to have parents with ADHD (Faraone et al., 2005). Further, parents with psychopathology and stress may be more likely to report greater severity in children's behaviours and symptoms compared to parents without other diagnoses (Galloway & Newman, 2017). Additionally, the parent who is rating the child may contribute to reporting discrepancies. Veen-Mulders et al. (2017) found that there was a significant difference in how mothers and fathers rated behaviour. Mothers rated externalizing behaviour as more severe than fathers did, while ratings on internalizing behaviour severity did not significantly differ between parents. Taken together, parent-child agreement of child-specific ratings is variable and may be attributed to a variety of factors.

### **The Current Study**

Using a strength-based approach in ADHD research is under-utilized. Only one study was found regarding strengths in ADHD, which analyzed the strengths of students with and without emotional disturbances (Lambert et al., 2021). Given the preliminary findings that strength-based research may benefit children with ADHD (Climie & Mastoras, 2015), it is essential to identify how parents and their children with ADHD rate their children's strengths. As such, the present study aimed to explore parent-reported and self-reported strengths in children with ADHD. The domains of strengths analyzed included the child's interpersonal strengths, functioning in and at school, affective strengths, intrapersonal strengths, and family involvement. In addition to these domains, the study asked two questions regarding how parents and their children described ADHD.

## Research Questions

To gain a better understanding of parent-child reported strengths in children with ADHD, the following research questions were posed:

1. How do parents and their children rate the children's strengths in each of the five domains of strengths: interpersonal strength, functioning in and at school, affective strength, intrapersonal strength, and family involvement?

Previous research reported children's strengths in social (e.g., Clark & Adams, 2020) and physical domains (Mahdi et al., 2017), and as well highlighted as their positive characteristics and traits (e.g., courage; Mahdi et al., 2017). As social domains can encompass domains within the BERS-2, such as one's interpersonal interactions and affective abilities, as well as how one interacts within a family and school environment, this literature alludes parents and children reporting strengths in these areas. Additionally, as optimistic perspectives about the child's traits align with intrapersonal abilities, it is presumed that parents and children will report strengths in these areas. Thus, parents and their children may rate their children's strengths positively if they view their children to resemble these skills and abilities.

2. Are there significant differences between parent and child ratings of interpersonal strengths, functioning in and at school, affective strength, intrapersonal strength, and family involvement?

Previous literature indicates that agreement on strength measures, such as the BERS-2 (the measure in the current study), is generally higher than on deficit-based measures (January et al., 2015). Synhorst et al. (2005) and Sointu et al. (2012a; 2012b) reported moderate to large correlations between parent-youth ratings in education settings. Noteworthy is the differences in agreement between domains, as January et al. (2015) found that parent-child ratings were more

agreeable in Family Involvement strengths than the Affective Strengths domains. However, the amount of difference in the parent-child rating depended on whether the youth had a disability or not. In the case of a disability, Affective parent-child reported strengths were more similar. With children non-disabled, School Functioning parent-child reported strengths were more similar. Additionally, Sonitu et al. (2016) reported moderate agreement on the parent-child-teacher ratings of overall strengths on the BERS-2. Taken together, the level of agreement between parents and their children is variable. Therefore, the current study hypothesizes that parent-child agreement on the BERS-2 will vary as a consequence of the domain rated.

3. What individual words do parents and their children use to describe ADHD?

No definitive hypotheses were made regarding descriptions of ADHD as no previous research exists. However, it is expected that parents and children will describe symptoms, presentations, and experiences attributed with ADHD.

4. What connotations are behind the words that parents and their children use to describe ADHD? Which of the three categories: positive, neutral, or negative do words primarily fall into?

Walker-Noack et al. (2013) reported on the perceptions of ADHD by youth with ADHD. Negative perceptions of ADHD included difficulty focusing, controlling behaviour, comprehending information, impatience, uniqueness seen as a fault, and the need to work harder than others to achieve the same level of success (Walker-Noack et al., 2013). Positive perceptions of ADHD included increased energy, needing less sleep than others to function, being more outgoing and social than their peers, and feeling their ADHD is linked to unique abilities (e.g. creativity). Based upon this study, the current study hypothesizes that parents and

children may characterize ADHD using a variety of words with positive, negative, or neutral connotations.

### Chapter 3: Methodology

This study was part of a larger project investigating broad strengths and stigma in children and adolescents with ADHD. Only details relevant to the present study are discussed. The present study was approved by the Conjoint Faculties Research Ethics Board (CFREB) at the host institution.

#### **Participants**

A total of 35 parents (mother or father, but not both) and 35 children with ADHD participated in the study. See table 1 for demographic information. The children ranged in age from 9 to 11 years old ( $M = 10.17$ ,  $SD = 1.00$ ). The majority of the children identified as male (71.42%) and the remaining children identified as female (28.57%); this ratio is reflective of the ADHD population where more boys are diagnosed with ADHD than girls (roughly 2:1 ratio; APA, 2022). Twenty-six (74.29%) of children identified their ethnicity as White/Caucasian/European and nine (25.71%) identified as Other. The Other category was composed of children who identified their nationality instead of ethnicity (e.g., Canadian) or who were of mixed race (e.g., Latino and European). The majority of parents ( $n = 32$ ) identified as female (91.43%) and the remaining parents identified as male ( $n = 3$ ; 8.57%). Parents identified their ethnicities as 85.71% White/Caucasian/European, 5.71% Latino/Hispanic, 2.86% First Nation or Metis, 3% East Asian, and 2.86% Other (South Asian).

#### ***Participant recruitment***

Participants were recruited through online posters and posts on social media sites (e.g., Facebook). Community partners (including the Learning Disabilities Association of Alberta, CanLearn Society, and Foothills Academy) also circulated information about the research study. Printed posters were placed in grocery stores and community buildings across the local area.

Families were given a \$25 gift card (e.g., Amazon) as a token of appreciation for their time and commitment to the project.

**Table 1**

*Demographic Information of Participants*

Rater	Child (n = 35)			Parent (n = 35)		
	<i>M</i>	<i>SD</i>	n(%)	<i>M</i>	<i>SD</i>	n(%)
Age	10.17	1.01	35	--	--	--
Gender						
Male	--	--	25 (71.42)	--	--	3 (8.57)
Female	--	--	10 (28.57)	--	--	32 (91.43)
Ethnicity						
White/Caucasian/European	--	--	25 (71.43)	89	--	30 (85.71)
First Nation or Metis	--	--	--	--	--	1 (2.86)
Latino/Hispanic	--	--	--	--	--	2 (5.71)
East Asian	--	--	--	--	--	1 (2.86)
Other			9 (25.71)			1 (2.86)
Conners-3 PRS						
Inattention	73.54	13.45	35 (100)	--	--	--
Hyperactivity/Impulsivity	74.86	13.77	35 (100)	--	--	--
Medicated						
Yes	--	--	26 (74.29)	--	--	--
No	--	--	9 (25.71)	--	--	--
WASI-II						
FSIQ	110.46	11.83	35 (100)	--	--	--

*Note.* Conners-3 PRS = Conners-3 Parent Report; WASI-II = Wechsler Abbreviated Scale of Intelligence, Second Edition; FSIQ = Full Scale IQ

***Inclusion criteria***

Before scheduling a testing session, a pre-screening survey was completed by parents to determine whether the child met the criteria to participate in the study. Information was gathered regarding age, gender, and additional medical, health, and/or learning diagnoses for the child and their immediate family members. Participants met inclusion criteria if they were between the



ages of 8.0 and 17.11 years with a previous diagnosis of ADHD. The diagnosis of ADHD must have been made by any recognized mental health professional who has diagnostic capability, such as pediatricians, family physicians, psychiatrists, and psychologists.

Additionally, T-scores for the Inattention and Hyperactivity/Impulsivity scales of the Conners Rating Scale – 3rd Edition, Parent Report (Conners-3 PR) served as inclusionary criteria for participants. Along with a previous diagnosis of ADHD, participants were required to have a T-score equal to or above 65 on one of the scales (i.e., a T-score of 65 indicating Elevated symptom presence on either or both symptom scales or inattention and hyperactivity/impulsivity). However, it is important to note that several the participants were taking medication at the time of testing. As the Conners-3 PR assesses current functioning, the T-scores of these participants may be lower than the previously specified criteria.

Additionally, all participants were required to fluently speak, write, and read English. To ensure comprehension of assessment questions, Average or greater full scale intelligence quotient (FSIQ) scores (i.e., a standard score of 80 and above), as determined using scores obtained on the Wechsler Abbreviated Scale of Intelligence – Second Edition (WASI-II), were also required. Finally, due to the nature of the measures used in the study, only children without major hearing or vision challenges were allowed to participate. Similarly, children were only included in the study if they did not have co-occurring gross motor or neurological diagnoses (e.g., cerebral palsy, ASD) due to the neurological overlaps with ADHD.

## **Measures**

Data was collected from both parents and children. Only measures relevant to the present study will be described.

### ***Parent measures***

Each participant's parent/legal guardian completed a demographic questionnaire (see Appendix A) and standardized rating scales. Rating scales included the Conners-3 PR (Conners, 2008) and the Behavioral and Emotional Rating Scale – 2nd Edition, Parent Form (BERS-2; Epstein, 2004). Additionally, parents responded to the open-ended question regarding how they would describe ADHD (see Appendix B).

**Conners Rating Scale – 3rd Edition, Parent Short Form (Conners-3 PR; Conners, 2008).** The Conners-3 PR (Conners, 2008) was administered to confirm an ADHD diagnosis and symptoms of ADHD for each participant. The rating scale includes 43 items that measure symptoms associated with ADHD and co-occurring problems in children between six and 18 years of age. The Conners-3 PR includes six content scales (inattention, hyperactivity/impulsivity, learning problems/executive functioning, defiance/aggression, and peer relations) and symptom scales based on diagnostic criteria in the APA's DSM-IV (APA,1994). Common inattentive behaviours may include difficulty concentrating on schoolwork or being easily distracted. Hyperactivity/impulsivity may present as high activity levels and impulsive behaviours. Learning problems/executive functioning may present as struggling academically, needing extra instructions, and demonstrating academic deficits. Learning problems may present as a child struggling with math, reading, and/or writing. Problems with executive functioning may present as poor planning or organizational skills. Defiance/aggression may include behaviours such as physical or verbal aggression, argumentative behaviour, and violent/destructive tendencies (e.g., cruel to others). Peer relation problems may include poor or limited social skills and difficulties with friendships. High scores within the content and symptom scales may present with characteristics associated with ADHD. For this study, two content scales (inattention and hyperactivity/impulsivity) were utilized to

determine if participants surpassed the threshold for heightened behavioural symptoms attributed to ADHD.

The Conners-3 PR asked parents to rate statements regarding their child's behaviours over the past month according to a 4-point Likert-type scale, including if the statement described their child or if their child enacted the behaviour listed. Parents chose the option not at all (0) if the child did not engage in the behaviour, just a little true (1) if the child occasionally engaged in the behaviour, pretty much true (2) if the child often engaged in the behaviour, and very much true (3) if the child very frequently engaged in the behaviour. The Conners-3 PR has demonstrated good reliability and validity, and the internal consistency ( $r = .85$  to  $.94$ ) and test-retest reliability ( $r = .72$  to  $.98$ ) are well within the acceptable range (Conners, 2008).

**Behavioral and Emotional Rating Scale – 2<sup>nd</sup> Edition, Parent Form (BERS-2; Epstein, 2004).** The BERS-2 (Epstein, 2004) measures parents' perspectives of their child's strengths and competencies in children between five and 18 years of age. The measure includes 59 items that analyze the child's interpersonal strength, involvement with family, intrapersonal strength, school functioning, affective strength, and career strength. However, career strengths were not asked about in this study as it does not apply to the majority of participants in the project.

The Interpersonal Strength subscale measures the ability to control emotions or behaviours in social situations (e.g., *is ok with being told "no"*). The Family Involvement subscale measures the participation in and relationship with family (e.g., *is involved in family pastimes*). The Intrapersonal Strength subscale broadly measures the child's outlook on their competence and accomplishments (e.g., *is excited about their life*). The School Functioning subscale focuses on the child's competence in school (e.g., *follows along in class*). The Affective

Strength subscale assesses the ability to accept and express affection (e.g., *accepts physical touch in the form of a hug*). Parents were asked to rate their child's positive behaviours and emotions over the past three months according to a 4-point Likert scale. Parents rated a statement as a 0 if they thought it was not at all like their child, a 1 if it was not much like their child, a 2 if it was like their child, and a 3 if the statement was very much like their child.

The BERS-2 has demonstrated acceptable test re-test reliability with coefficients of .80 to .94 (Mooney et al., 2005). Convergent validity was assessed by comparing the BERS-2 PR to the Social Skills and Rating System (SSRS; Gresham & Elliott, 1990) and the Child Behavior Checklist (CBCL; Achenbach, 1991a). All correlation coefficients between the parent forms of the BERS-2 and SSRS were statistically significant, and most correlation coefficients between the BERS-2 and CBCL were significant, indicating evidence for convergent validity (Mooney et al., 2005). The BERS-2 parent form also demonstrated strong internal consistency with coefficients of .84 to .93 (Buckley et al., 2006).

### ***Child measures***

Child participants completed a demographic questionnaire (see Appendix A) followed by the Wechsler Abbreviated Scale of Intelligence, Second Edition (WASI-II; Wechsler, 2011) and the Behavioral and Emotional Rating Scale, Second Edition - Child Form (BERS-2; Epstein, 2004). Child participants were also asked to describe ADHD (see Appendix B).

**Wechsler Abbreviated Scale of Intelligence, Second Edition (WASI-II; Wechsler, 2011).** To ensure adequate comprehension of the questions posed, the WASI-II was included to determine whether participants were functioning at an age-appropriate intellectual level. The WASI-II is composed of four subtests that load onto a total intellectual score, known as the FSIQ. However, two of the four subtests must be administered in person. As this study took

place online due to covid restrictions, using all four subtests was not possible. Instead, an accurate representation of a child's intellectual functioning can be found using only two of the four subtests online, known as the FSIQ-2. The FSIQ-2 is composed the subtests called Vocabulary, which measures one's ability to orally define and compare and contrast words, and Matrix Reasoning, which assesses one's ability to detect and apply previous knowledge to solve problems, particularly with novel problems.

The WASI-II is a commonly used measure that has demonstrated good reliability, test-retest stability, and construct validity (Wechsler, 2011). In the child sample, internal consistency coefficients for the subtest scores ranged from good to excellent (.87 to .91), while internal consistency coefficients for the composite scores all fell within the excellent range (.92 to .96). In terms of test-retest stability, subtests revealed acceptable to excellent (.79 to .90) stability, while composites exhibited good to excellent (.87 to .95) stability. The validity of the WASI-II is supported by strong interrelationships across all the subtests and composites. A study by McCrimmon and Smith (2013) demonstrated concurrent validity by comparing the WASI-II to two similar intellectual functioning measures, the Wechsler Adult Intelligence Scale, Fourth Edition (WAIS-IV) and the Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV), resulting in acceptable to excellent coefficients (.71 to .92).

**Behavioral and Emotional Rating Scale – 2<sup>nd</sup> Edition, Child Form (BERS-2; Epstein, 2004).** The BERS-2 (Epstein, 2004) measures personal perspectives of strengths and competencies. This form is made for children aged five to 18 years and includes 52 items that analyze the child's perspective of his/her interpersonal strength, involvement with family, intrapersonal strength, school functioning, affective strength, and career strength. Descriptions of the domains are the same as the parent form. Similar to the parent form, career strengths were

not asked due to the age of the child participants. Descriptions of the 4-point Likert Scale for the child form are the same as the parent form above.

The BERS-2 child form was normed on 1301 children (Buckley et al., 2006). Internal consistency of the five subscales was found to range from .79 to .88 and the test-retest reliability for the strengths index ranged between .84 to .91 (Epstein, 2004). Confirmatory factor analysis validated the five-factor structure (Buckley et al., 2006), and convergent validity was demonstrated by comparing the BERS-2 child form with the Child Behavioural Checklist (CBCL) and the symptoms functioning severity scale (Hurley et al., 2015).

### ***Parent and Child Qualitative Analysis***

To understand descriptions of ADHD, procedures similar to a qualitative descriptive design were undertaken (Doyle et al., 2020). A qualitative descriptive design ensures rigorous data analysis and theme rationalization but does not subscribe to a specific analysis (e.g., Thematic Analysis). As such, the procedures are more flexible. Additionally, the goal of qualitative descriptive design is to provide explicit descriptions regarding the target populations experiences and perceptions and is utilized when there is little information about the topic (Doyle et al., 2020). Lastly, this design aims to present findings in such a way that they stay true to the research question. As the process of this study closely resembled these components of qualitative descriptive design, it serves as the framework for the ADHD descriptor research questions.

Parent and child responses for ADHD descriptors were taken from the original data set and were transferred into an excel document, with separate pages for parents and children. The author firstly created a coding tree, a hierarchy of identified major themes interpreted from the provided responses, for both the parent and child responses. The author then sent the coding tree to three independent raters to examine and provide feedback. Once all independent raters sent

their feedback to the author, the author and raters met to discuss the feedback and determine what changes were necessary. The author then made the necessary changes. Following, the author sent out a modified coding tree to the raters and once again received feedback. Another meeting was held to ensure consistency with changes. The coding tree was accepted by all four individuals after three rounds of feedback and modifications. Noteworthy, two of the raters identified as neurotypical and were consulted to ensure descriptive categories represented the words given by the families.

A similar process was repeated to determine the connotation of the words associated with the ADHD descriptors by parents and children (Doyle et al., 2020). Prior to analyzing the data, the terms positive, negative, and neutral were defined in collaboration with all external raters. This included meeting and discussing what the definitions of each of these words meant to each individual, as well as consulting online sources to determine if the definitions created were suitable. All raters agreed upon the definitions. Positive connotations were indicated as words that elicit a favourable emotion or response, insinuating an optimistic quality or attribute that one possesses. Alternatively, negative connotations were indicated as words that elicit an adverse emotion or response, insinuating qualities or attributes that one possesses as unfavourable. Lastly, neutral connotations were indicated as words that do not elicit positive or negative responses, could not be interpreted without context, and were not associated with emotional states. A qualitative approach using frequency counts presented in the data was utilized to analyze the identified themes. Each positive, negative, and neutral theme frequency was identified by assessing and dividing the number of codes per theme by the total number of unique codes assigned.

## **Procedure**

Before participating in the study, a short pre-screening survey was sent to the parent (less than 10 minutes to complete) to determine whether the child met the criteria to participate in the study. Once it was determined that the criteria were met, parent/guardian consent and child assent for participation were established and parents/guardians were provided with a questionnaire link to complete a Qualtrics survey that contained all the parent measures (demographic questionnaire, the Conners-3 PR, and the BERS-2 PR, and additional measures relevant to the larger project). The current study assumed that parents knew what ADHD was when answering the descriptive ADHD-related question. Parents/guardians had two weeks to complete the measures. In the same email sent to the parents containing the link, researchers also booked a date and time with the child to complete the child-based measures online using secure Zoom student accounts. During these sessions, researchers worked one-on-one with the child, using Qualtrics to answer survey-based questions. Researchers began the session by administering the WASI-II to determine the child's cognitive score. If the child's intellectual functioning was deemed as Average or greater, the session continued. Except for the WASI-II, all additional measures were administered in random order. Children were offered breaks when needed, as deemed by the researcher. Before getting children to describe ADHD, the researchers asked if they knew what ADHD was. Only children that defined ADHD accurately were included in this study. Providing a section where participants can describe what ADHD means is important as the researchers can better understand the frequency at which common words are used to describe ADHD, as well as the categories that represent what ADHD means in families that experience ADHD first-hand.



## **Chapter 4: Results**

### **Data Cleaning and Preliminary Analyses**

Data were entered into statistical analysis software (SPSS Version 26). Prior to conducting analyses, the data were examined to confirm statistical assumptions and identify potential outliers following the procedures outlined by Tabachnick and Fidel (2007). Data were checked for missing values in parent and child responses. No values were missing; therefore, all participants were included in the study. Normality of the data was then determined through an analysis of histograms, P-P plots, skewness, and kurtosis. No violations of normality were observed within the data. Levene's Test for Equality of Variances resulted in non-significant values, meaning the variance between groups was approximately equal. Box plots were conducted to determine if outliers were present. No extreme outliers were identified. A post-hoc power analysis (.95) was conducted using G\*Power3 (Faul et al., 2007). The present sample size was not determined to be sufficient to detect effects; therefore, the results of this study may be impacted by low power. To detect effects, a sample size of 105 for both parents and children is recommended.

### **Research Question One**

The first research question examined how parents and their children rated their children's strengths in five domains: interpersonal strength, functioning in and at school, affective strength, intrapersonal strength, and family involvement. To determine the average child scaled scores for each domain, each participant's raw score was calculated and converted to a scaled score. Next, all the children's scaled scores for each domain were added together and averaged to get the total mean scaled score and standard deviation for each domain as well as the descriptive term (e.g., Low Average). This process was repeated for the parent data.

Children perceived all of their strengths to be in the Average range (i.e., fell between a standard score of 8-12), including affective ( $M = 9.43$ ,  $SD = 2.29$ ), interpersonal ( $M = 9.26$ ,  $SD = 3.08$ ), family involvement ( $M = 9.26$ ,  $SD = 2.27$ ), intrapersonal ( $M = 8.71$ ,  $SD = 2.54$ ), and school functioning ( $M = 8.60$ ,  $SD = 2.91$ ) strengths. Thus, children felt their abilities in each domain were similar to other children of the same gender. Parents ratings were more variable than children's ratings. Parents believed that their children had Average affective ( $M = 9.34$ ,  $SD = 2.71$ ), intrapersonal ( $M = 8.54$ ,  $SD = 2.76$ ), interpersonal ( $M = 8.23$ ,  $SD = 2.77$ ) strengths, but reported family involvement ( $M = 7.91$ ,  $SD = 2.42$ ), and school functioning ( $M = 7.03$ ,  $SD = 2.44$ ) strengths as Below Average.

Parent and child overall strengths ratings were calculated to better understand how they uniquely see their overall strength profile. Scores were calculated for each participant by taking their overall total BERS-2 strength index score (composed of the five domain scaled scores) and averaging the score to get an overall BERS-2 parent and child strength index score. Children's overall index score fell in the Average range (93.31), whereas the parent's overall index score fell within the Below Average range (87.57).

### **Research Question Two**

The second research question examined if there were significant differences between parent-child ratings of the children's interpersonal strengths, functioning in and at school, affective strength, intrapersonal strength, and family involvement. To determine if the children differed from their parents in their ratings of strengths, an independent samples t-test (two-tailed) was conducted for each strength domain. Results of the t-tests revealed a significant difference in family involvement ratings between parents ( $M = 7.91$ ,  $SD = 2.42$ ) and their children ( $M = 9.25$ ,  $SD = 2.27$ ),  $t(68) = 2.34$ ,  $p = .019$ , Cohen's  $d = .57$  and in school functioning ratings between

parents ( $M = 7.02$ ,  $SD = 2.44$ ) and their children ( $M = 8.60$ ,  $SD = 2.91$ ),  $t(68) = 2.45$ ,  $p = .017$ , Cohen's  $d = .59$ . There was no significant difference of ratings in interpersonal strengths by parents ( $M = 8.23$ ,  $SD = 2.77$ ) and their children ( $M = 9.26$ ,  $SD = 3.08$ ),  $t(68) = 1.47$ ,  $p = .146$ , intrapersonal strengths by parents ( $M = 8.71$ ,  $SD = 2.54$ ) and their children ( $M = 8.54$ ,  $SD = 2.76$ ),  $t(68) = .27$ ,  $p = .788$ , or affective strengths by parents ( $M = 9.34$ ,  $SD = 2.71$ ) and their children ( $M = 9.45$ ,  $SD = 2.29$ ),  $t(68) = 1.43$ ,  $p = .887$ . An independent samples t-test was conducted to determine if there were significant differences between the parents' overall strength index score and their children's overall strength index score. No significant differences were found between parents ( $M = 93.31$ ,  $SD = 14.49$ ) and their children ( $M = 87.57$ ,  $SD = 14.05$ ),  $t(68) = 1.68$ ,  $p = .097$ . See table 2.

As multiple independent t-tests were conducted, the most appropriate and conservative approach to ensuring accurate results would be to use the Bonferroni correction. The Bonferroni correction involves taking the original significance value (.05) and dividing it by the number of t-tests conducted (six), resulting in a conservative significance value of .008. Because of this substantially decreased p-value, all the previously reported strength values become non-significant. Therefore, no significant differences in parent and child ratings would be reported. For the purposes of this project, the Bonferroni correction has not been implemented. As this study has a small sample size with limited power, the conservative nature of the Bonferroni correction is not necessary and would suppress the importance of the findings. However, the results should be interpreted with caution given the correction is not being used.

**Table 2***Strengths Ratings by Children and Parents*

Rater	Child (n = 35)				Parent (n = 35)				Independent Samples t-test		
Variable	Scaled Scores (M)	SD of Scaled Scores	Total Strength Index	Descriptive Term	Scaled Scores (M)	SD of Scaled Scores	Total Strength Index	Descriptive Term	t-score	p-value	Cohen's d
Interpersonal Strengths (IS)	9.26	3.08	-	Average	8.23	2.77	-	Average	1.47	.146	.35
Family Involvement (FI)	9.26	2.27	-	Average	7.91	2.42	-	Below Average	2.34	<b>.019*</b>	.57
Intrapersonal Strengths (IaS)	8.71	2.54	-	Average	8.54	2.76	-	Average	0.27	.788	.06
School Functioning (SF)	8.60	2.91	-	Average	7.03	2.44	-	Below Average	2.45	<b>.017*</b>	.59
Affective Strengths (AF)	9.43	2.29	-	Average	9.34	2.71	-	Average	1.43	.887	.04
BERS-2 Strength Index	-	-	93.31	Average	-	-	87.57	Below Average	1.68	.097	.40

*Note.* \* Indicates a significant difference in parent and child ratings of the specified strength domain.

### Research Question Three

The third research question examined the words that parents and their children used to describe ADHD. Word categories were analyzed for frequency in SPSS 26. Words of similar meaning were grouped into similar categories.

Parents described ADHD using a total of 102 words that were subsequently sorted into seven categories; percentages of the number of words in each category were provided to demonstrate the proportion of words allotted to each category out of the total proportion of words. The seven categories included 1. Physical and Mental Energy (e.g., active; fast brain; 22.55%), 2. Feeling Different (e.g., atypical; 7.84%), 3. Positive Attributes (e.g., creative; 4.90%), 4. Heightened Emotions and Behaviour (e.g., sensitive; 3.92%), 5. Executive Functioning Challenges (e.g., forgetful; 28.43%), 6. Attention challenges (e.g., lack of focus; 14.71%), and 7. Negative Feelings and Perceptions (e.g., frustrating; 17.65%). See table 3; see Appendix C for the full word list. Examples of direct participant descriptions for ADHD include “inattention, hyperactive, busy” (Participant 9P, Mother of 10-year-old); “scattered, distracted, impulsive” (Participant 21P, Mother of 11-year-old); “Energy, impulsive, dysregulation” (Participant 59P, Mother of 11-year-old).

**Table 3***Categories for Parent Descriptions of ADHD*

Category	Number of Words Per Category	Percentage of Words in Each Category
Physical and Mental Energy	23	22.55
Feeling Different	8	7.84
Positive Attributes	5	4.90
Heightened Emotions and Behaviour	4	3.92
Executive Functioning Challenges	29	28.43
Attention Challenges	15	14.71
Negative Feelings and Perceptions	18	17.65
Total Number of Words	102	

Children described ADHD using a total of 75 words that were sorted into 10 categories. The 10 categories included 1. Physical and Mental Energy (e.g., fidgety; super focused; 18.67%), 2. Feeling Different (e.g., disorder; 5.33%), 3. School Challenges (e.g., impacts grades; 10.67%), 4. Attention Challenges (e.g., not paying attention 32.00%), 5. Challenges of ADHD (e.g., harder to sleep; 9.33%), 6. Heightened Emotions (e.g., emotional; 1.33%), 7. Negative Attitudes, Attributes, and Perceptions (e.g., rude; 2.67%), 8. Positive Attributes (e.g., friendly; 6.67%), 9. Executive Functioning Challenges (e.g., not organized; 4.00%), and 10. Behavioural Consequences (e.g., fight with parents; 9.33%). Frequent words used to describe ADHD included energy, distracted/distraction, unfocused/less focused, and fidgeting. Examples of direct participant descriptions include “Can’t focus well, has anger issues, not very friendly” (Participant 33C, 10-year-old); “I get mad, affects me at school, sometimes fight with parents” (Participant 55C, 9-year-old). See table 4; see Appendix C for the full word list.

**Table 4***Categories for Child Descriptions of ADHD*

Category	Number of Words Per Category	Percentage of Words in Each Category
Physical and Mental Energy	14	18.67
Feeling Different	4	5.33
School Challenges	8	10.67
Attention Challenges	24	32.00
Challenges of ADHD	7	9.33
Heightened Emotions	1	1.33
Negative Attitudes, Attributes, and Perceptions	2	2.67
Positive Attributes	5	6.67
Executive Functioning Challenges	3	4.00
Behavioural Consequences	7	9.33
Total Number of Words	75	

**Research Question Four**

The fourth research question analyzed the connotations (i.e., positive, negative, or neutral) associated with the word descriptions of ADHD by parents and children, determining into which of the three broad categories the words fell. Three raters, two of them being external to the project, used a descriptive design to analyze the words parents used to describe ADHD into three categories: positive, neutral, and negative. Of the 102 words provided, 52 words (50.98%) fell within the negative category (e.g., scattered, emotional volatility, challenging, chaotic, defiant, disorganized, and frustrating). Forty-two words (40.20%) fell under the neutral category. Words within this category included impartial descriptions of ADHD such as “variable” as well as words that seemed to describe the most well-known symptoms of ADHD

without context, such as “inattention, impulsive, hyperactivity”. Only nine of the words (8.82%) used to describe ADHD were deemed as positive. Four of the nine words related to activity or energy levels, three related to creativity, and two parents used “passionate” and “hyperfocus” to describe some positives of ADHD. See Appendix D for the full categorization of words.

Similar trends were found in the children’s descriptions of ADHD. Of the 75 words, 50 words fell within the negative category (66.67%), including struggling, taking attention away from your teachers, trouble with school, anger issues, stress, and can’t concentrate. Seventeen of the words (22.67%) fell within the neutral category, including ADHD symptom descriptors such as “hyperactivity”. Only eight words (10.67%) fell within the positive category, including descriptions such as smart, sociable, imaginative, curious, and greater energy/focus. See Appendix D for the full categorization of words.



## Chapter 5: Discussion

The purpose of the study was to investigate parent-child reported strengths in children with ADHD. Additionally, the study examined what words parents and their children used to describe ADHD. Four research questions were investigated: (1) How do parents and their children rate the children's strengths in each of the five BERS-2 strength domains: interpersonal strength, functioning in and at school, affective strength, intrapersonal strength, and family involvement?, (2) Are there differences between parent and child ratings on the five BERS-2 strength domains?, (3) What words do parents and their children use to describe ADHD?, (4) What connotations (positive, neutral or negative) do the descriptions of ADHD fall into? Is there one category that accumulates more words than others?

### Research Question One

The first research question examined how parents and their children with ADHD rated the children on five different strength-based domains (Interpersonal Strength, School Functioning, Affective Strength, Intrapersonal Strength, and Family Involvement). Additionally, perceptions of children's overall strengths were explored.

Affective strengths are defined as the ability to accept and express affection with others (Epstein, 2004). One can demonstrate affective strengths through positive behaviours, including showing concern for others, acknowledging others' feelings, and creating space for intimacy and interactions with others (Epstein, 2004). The children's affective abilities were rated by both parties as Average. Therefore, the children's levels of affection and intimacy with others were deemed to be sufficient. An Average rating may be considered a strength for children with ADHD as research indicates that the symptomology of ADHD is associated with impairments in affective functioning (Schneidt et al., 2019). The affective abilities of children with ADHD have

been reported to be lower than non-ADHD children. Specifically, children with ADHD may have difficulty with understanding and expressing emotions (a component of affective functioning; Jusyte et al., 2017). For example, children with ADHD demonstrated less accurate basic emotional recognition (e.g., surprised, sad, happy, angry, disgusted, and fearful) and processing rates compared to non-ADHD children (Jusyte et al., 2017). More optimistic affective strengths ratings in the current study provide alternative understandings of the affective capabilities of children with ADHD. According to this study, children with ADHD display affective skills that are similar to peers. Although there are variations in the degree to which children possessed affective strengths, the overall capacity of children with ADHD to acknowledge and utilize affective strengths is proficient and should be celebrated. Further, embodying and using affective skills in daily life can support success in other areas of strengths, especially when interacting with others.

Intrapersonal strengths encompass the positive characteristics of a child (e.g., humour) as well as the extent to which the child's outlook, competence, and accomplishments are positively perceived (Epstein, 2004). Both parent and child ratings indicated Average intrapersonal abilities, meaning children were rated as having similar successes to others of their same gender. Children with ADHD were also viewed as having similar positive outlooks to their peers. Average ratings may indicate greater intrapersonal success in an ADHD population. Despite the daily challenges and impairments to functioning that children with ADHD may face as a consequence of their symptoms, they demonstrate similar positive reflections and expectations as other children. Thus, children with ADHD may see their characteristics, experiences, and potential as equal to their same gendered peers.

Average intrapersonal strength ratings by parents may indicate that they view their children's accomplishments through an optimistic lens. Parents acknowledging the positive characteristics that their children possess not only promotes strength-based reasoning but may also support the parents' well-being. Specifically, positive parent perceptions of their child are associated with positive maternal affect and well-being (Lickenbrock et al., 2011). Further, positive parental emotions, perceptions, reflections, and relationship dynamics are associated with less distress (Horsley & Oliver, 2015). Lastly, parents positively viewing their child from a young age may support decreased levels of parental stress (Horsley & Oliver, 2015).

Interpersonal strengths are broadly defined as how one relates to others (Epstein, 2004). However, it also encompasses one's reaction in times of upset, hurt, disappointment, and criticism as well as one's willingness to admit responsibility (Epstein, 2004). Emotional regulation is necessary when appropriately reacting to others and taking responsibility for one's actions. Children with ADHD are reported to experience emotional dysregulation, where they have difficulties attempting to modify their emotions to fit the context (Staff et al., 2021). For example, children with ADHD may respond inappropriately in a social situation as a function of emotional dysregulation (Staff et al., 2021). However, parents and children rating the child's interpersonal abilities as Average implies that children with ADHD react and take accountability for their actions like same gender peers. Further, the perceived Average rating may demonstrate that although children with ADHD have a greater potential for increased emotional dysfunction or dysregulation, their overall perceived interpersonal skills are developed similarly to peers. Climie et al. (2019) reported that children with ADHD demonstrated Average abilities to identify emotions and feelings, control their emotions, and utilize emotions when problem-solving. Similar to the Climie et al. (2019) study, children's emotions in various contexts are not reported

to be significantly different from non-ADHD children. This result may be because children with ADHD often develop coping strategies and skills to support their emotions and reactions in various contexts.

Previous research noted that children with ADHD have significantly lower perceptions of themselves compared to their peers (Dvorsky et al., 2019). Consequently, children with ADHD may be less likely to engage with others or may engage inappropriately with others, placing them at greater risk for mental health difficulties (e.g., depression) and interpersonal problems (Dvorsky et al., 2019). Alternatively, viewing one's interpersonal interactions as positive may serve as a protective factor against mental health difficulties, as well as encourage a more positive quality of life (Dvorsky & Langberg, 2016). As participants in the current study reported the children's interpersonal strengths to be Average, the results align more closely with the Dvorsky and Langberg (2016) study. Children with ADHD demonstrated the ability to react and take accountability for their actions like their same gender peers, as well as interact with others appropriately, which may promote more fulfilling and positive outcomes.

Ultimately, Dvorsky et al. (2019) and the current study reported inconsistent findings. The different findings may be in part due to the lens through which the research was analyzed (e.g., strength-based or deficit-based). Dvorsky et al. (2019) introduced social interactions of youth with ADHD from the perception of stigma, impairment, and heterogeneity, whereas the current study examined interpersonal functioning by focusing on the child's competencies. Additionally, in the current study, children aged nine to 12 participated, whereas youth ages 11 to 14 years participated in the Dvorsky et al. (2019) study. Older youth may be experiencing multiple changes including academic (elementary to junior high school), social (changes in friend groups), and physical (puberty). These changes may affect interpersonal interactions.

Although younger children could experience these changes, they are likely to be more prominent in adolescence. Lastly, Dvorsky et al. (2019) included items asking about internalizing and externalizing symptoms which were not asked about in the current study. As internalizing and externalizing disorders beyond ADHD (e.g., anxiety, depression) often negatively contribute self-perceptions (Cueli et al., 2020), children in the Dvorsky et al. (2019) study reporting lower overall perceptions is unsurprising. Taken together, the differences between methodology and theoretical perspective behind the studies likely contribute to contrasting findings.

Strengths in family involvement include the child's familial relationships and their participation in family life (Epstein, 2004). Children perceived their family involvement to be Average, indicating that they felt their interactions with family members were similar to their same-gender peers. Thus, children believed the amount of time they spend with their families engaging in activities was similar to their same gender peers. Conversely, parents reported Below Average ratings of their children's involvement, indicating that parents perceived their children's family involvement to be lower than other children. Parents may believe that their family does not spend enough time (or quality time) together. As families with ADHD experience more conflict (Climie & Mitchell, 2017), parents may believe that because of conflict, families spend less time together. Lastly, ADHD-related symptoms may affect or limit the activities families can participate in (e.g., parents feel they cannot take their children to certain activities due to the challenges associated with their behavioural symptoms), reflected in family involvement ratings.

School functioning strengths involve the children's participation in school tasks, including task completion, time management, attention, and perceived academic achievement (Epstein, 2004). Children with ADHD are reported to struggle with schooling demands due to

their symptom presentation (e.g., inability to focus on the teacher). Challenges with executive functioning (a mechanism used when concentrating) are generally associated with disorganized and uncooperative behaviours (Tamm et al., 2021). Additionally, slow task completion and lack of initiative to complete work are associated with impaired performance at school (Goh et al., 2020). Thus, deficits in executive functioning may impact one's school functioning in relation to classroom attentiveness and behaviours, as well as academic performance.

Children with ADHD frequently underachieve (Langberg et al., 2011). It is estimated that 33% to 63% of children with ADHD have difficulties in at least one school subject (Condo et al., 2022). As such, children with ADHD are at a greater risk of achieving lower grades, exhibiting poor reading and mathematics skills, and repeating grades (Daley & Birchwood, 2010). Underachievement is linked to a myriad of negative outcomes such as dropping out of high school and/or having occupational difficulties later in life (Condo et al., 2022). Therefore, children with ADHD may be at a greater risk of negative outcomes (Condo et al., 2022).

In this study, children with ADHD believed that their school functioning is similar to classroom peers. Thus, children with ADHD feel that their abilities to complete tasks, achieve academically, and behave appropriately are similar to peers. However, parents' ratings were less optimistic, as children's school functioning was rated in the Below Average range. Thus, parents believed their children were underperforming both academically and behaviourally at school.

Overall, children's positive perspectives throughout strength domains demonstrate that they view their competencies in an optimistic light. Children with ADHD believe that they are capable of achieving in a variety of ways similar to children of their same gender. Even though children may be cognizant of their challenges related to ADHD, their hopeful perspectives emulate the characteristics of positive psychology as they believe they possess equal strengths

with their peers. Although parents rated their children's functioning in some strength domains as lower than the children did, parents reported many strengths regarding their children's multifaceted abilities. Parents noted areas where they believed their children were stronger, which may help to foster and promote their children's continued growth and success in particular domains. For example, encouraging children to use their interpersonal skills to support school functioning may strengthen the children's communication while also building school-related skills. Thus, this study provides exciting preliminary findings regarding how parents and their children rate their strengths.

In addition to individual strength indices, the BERS-2 measure provided an overall strength index score. Parent-child classification of ratings differed, as children had an overall strength index score of Average, whereas parents had an overall index score of Below Average. However, no significant statistical differences were found between overall ratings. The lack of difference indicates that perceptions of overall abilities by parents and their children are similar. Knowing members within a family view the children's strengths similarly allows for greater ease of implementation and integration of a system of supports to continue to build on the children's strengths and abilities.

### **Research Question Two**

The second research question examined if there were statistical differences in parent-child ratings on the five strength-based domains (interpersonal strengths, functioning in and at school, affective strength, intrapersonal strength, and family involvement). There were significant differences in the family involvement and school functioning ratings where children rated their family involvement and school functioning as significantly higher than their parents did. Children perceived their abilities to be within the Average range, while parents reported the

children's abilities in the Below Average range. The moderate difference in ratings indicates that there is a real-world contrast between how parents and their children view their abilities.

Therefore, it is necessary to explore why there is a significant discrepancy in parent-child perceptions of family and school functioning.

### ***Family Involvement Rating Discrepancies***

Parental stress or family conflict may influence parent ratings. As previously noted, there may be greater conflict in families who have children with ADHD (Climie & Mitchell, 2017). Children with ADHD often present with greater behavioural challenges, which can contribute to parental stress and frustration (Climie & Mitchell, 2017). Further, as children with ADHD are more likely to have co-occurring diagnoses, such as ODD, which can amplify conflict, parenting may be more challenging.

Although not specific to children with ADHD, it is proposed that parental expectations of family involvement may be different from the children's expectations. For example, if parents feel that their children are not spending quality time with the family, or do not actively participate in planned activities/events with their parents, parent ratings may be lower than child ratings. Alternatively, children with ADHD may not spend as much time with their parents, potentially because of ADHD-specific factors like increased family conflict (Climie & Mitchell, 2017). Future research could explore parent and child expectations regarding family involvement.

Noteworthy, children with ADHD may be reporting their strengths in a socially desirable manner, providing answers consistent with what they believe others will find favourable (Brener et al., 2003; van de Mortel, 2008). Children may believe it is desirable to participate in family activities, thus providing an Average rating. Alternatively, children may report an Average rating



as they believe they have sufficient family involvement. As children with ADHD perceive their relationships with their parents to be like non-ADHD children (Climie & Mitchell, 2017), they may view their family involvement similarly. On the other hand, as these children are entering adolescence (regardless of having ADHD), they may value their friendships more and spend more time with peers than with their families (Nickerson et al., 2005). Further, as the majority of the raters in this study were mothers, family involvement ratings were based on one perspective, largely without father input. Future research should consider receiving parent ratings from both parents to ensure the reports of the child's strengths are better represented.

It may be the case that both the children and parents are reporting the children's perceived family involvement as accurately as possible. In this case, there is a clear distinction between the parent-child perceived roles and expectations within the family context. Regardless, the distinction between ratings provides parents and children with opportunities to communicate about and clarify family expectations. Examples may include communicating with their family members about more effective and meaningful family time. Families may be interested in modifying the home environment to encourage greater family involvement. For families that have children with ADHD, potential positive modifications include adding structure and routine into the home to increase stability and utilizing external supports when necessary (e.g., counseling; Moen & Hall-Lord, 2019).

Taken together, the significant difference between parent and child ratings of family involvement provides insight into inconsistencies in family dynamics. As such, family involvement may be an area that research and interventions target to support a more cohesive and supportive family environment.

### ***School Functioning Rating Discrepancies***

Parent and child discrepancies in school functioning ratings may transpire for several reasons. Children with ADHD may view themselves through an overly positive lens, where children tend to over-report positive aspects and under-report negative aspects of their functioning (Owens et al., 2007). Children with ADHD may also overestimate their competence in at least one domain of functioning (Fefer et al., 2018). Therefore, children with ADHD may perceive their school abilities as being more competent than their actual abilities. Consequently, children would subjectively rate their abilities as falling in the Average range, even if they objectively are not. Alternatively, children may be unaware of the discrepancies in performance and behaviours between them and peers. For example, if children with ADHD receive acceptable grades but require support to complete tasks, they may not see their added support as a consequence of reduced school functioning. Lastly, social desirability may also influence children's scores if they feel they should have similar school functioning to their peers.

In a school setting, parents may be better informed than students regarding school functioning if they maintain open communication with the staff. By doing so, parents may know first-hand about the supports, goals, and experiences the child has at school. Alternatively, as parents are not physically present at school, they understand their children's experiences through reports from others (i.e., school staff). As such, the accuracy of reporting may be affected. Future research should include the teacher's perspective of the children's school functioning to better determine the accuracy of the school functioning ratings.

Together, children with ADHD were reported as performing slightly below peers in school functioning; thus with supports and intervention they may be able to gain the skills necessary to perform similarly to peers. Further, as the children with ADHD were reported to have Average strengths in interpersonal, intrapersonal, and affective domains, they may

demonstrate intrinsic and extrinsic strengths such as motivation, emotional regulation, and social support that can aid in their school functioning success (Smith et al., 2020).

### **Research Question Three**

To explore the language used to describe ADHD, parents and children were asked to identify three words that described ADHD. Altogether, parents provided 102 words and children provided 76 words. To determine the underlying themes of the words provided, words were organized into categories. Seven parent categories (feeling different, attention challenges, executive functioning challenges, positive attributes, physical and mental energy, heightened emotions and behaviours, and negative feelings and perceptions) and 10 child categories (feeling different, attention challenges, executive functioning challenges, positive attributes, physical and mental energy, heightened emotions and behaviours, challenges of ADHD, school challenges, negative attributes and perceptions, and behavioural consequences) were identified.

### ***Shared Responses***

Many of the categories were comprised of similar descriptors of ADHD by both parents and children. Therefore, similar categories by parents and children will be discussed together.

**Feeling Different.** Parents and children stated that ADHD can be described as “different” or “atypical”. As ADHD is a neurodevelopmental disorder, it is unsurprising that ADHD families associate it with feeling different. Further, as ADHD is often described within a deficit-based lens, where the focus of intervention is on “fixing” an individual (Climie et al., 2015). In this case, perceiving ADHD as atypical may be considered the norm, even for a family experiencing ADHD. Previous research has noted that understanding ADHD as “different” by those with ADHD is common (e.g., Jones & Hesse, 2018; Kendall et al., 2003; Sciberras et al., 2011). Individuals report feeling “different” throughout their life. As a child, children were

cognizant that their functioning and experiences as a person with ADHD separated them from others. Ringer (2020) reported that adolescents associated ADHD with a lack of belonging, where they felt different from others and struggled to integrate with their peers. Nyström et al. (2020) reported that adults with ADHD described ADHD as different, making them feel inferior to others. Consequently, feeling different is prominent in the ADHD community.

Understanding that children with ADHD continue to be perceived as atypical highlights the need for greater research and emphasis on the strengths of ADHD. Highlighting strengths that are seen as different, but in a positive light, may support one's perception of themselves to be more optimistic (e.g., more creative than peers). Additionally, if children feel confident in their abilities and view ADHD as only a component of their identity, they may be less inclined to feel that their ADHD makes them atypical or inferior to others.

**Attention Challenges.** Both parties attributed ADHD to attention-related challenges. The majority of descriptions highlighted a lack of focus associated with ADHD symptomology. Parents and children mentioned the term “distracted” as a common descriptor of ADHD. A term such as distracted may suggest that parents and children are aware of the child's difficulty to accurately focus their attention. Terms used to describe ADHD attention challenges aligned with diagnostic ADHD criteria, such as difficulty with sustained attention, the tendency to quickly lose focus, and the ability to become easily distracted (APA, 2022). Attentional challenges described also align with criteria which specify that the challenges occur within multiple settings (e.g., “taking attention away from the teacher” and “squirrely” [at home]). Accurate descriptors of attentional challenges may reflect the current understanding of ADHD within these families.

Parents are aware of the attentional difficulties of which their children present. This awareness can be utilized in a strength-based way to support their child in various settings (e.g.,

at school) by educating others about their children's needs as well as providing strategies to best support their children. Educating teachers about their children's needs may be especially important to promote academic success. Informing teachers to use clear and concise sentences while teaching students with attentional difficulties can support academic understanding (Daley & Birchwood, 2010). As children are also aware of (at least some of) their attention challenges, they can be taught to advocate for their own needs. For example, if a child knows that they struggle to focus on work at school, the parents, child, and teacher can discuss preferential seating to support learning. Taken together, awareness of attentional difficulties that affect one's functioning provides the foundational knowledge necessary to determine how parents and children can support these difficulties.

**Executive Functioning (EF) Challenges.** Executive functioning is defined as a higher-order brain mechanism that enables one to successfully complete several skills, including planning, organization, working memory, attention, and inhibition (Steward et al., 2017). Impairments in executive functioning, leading to behaviours such as disorganization, are associated with ADHD. Just as previous research has noted a connection between EF challenges and ADHD (e.g., Steward et al., 2017), so too did the participants in this study. However, there was a stark contrast between the percentage of words used to describe ADHD related to EF challenges between parents and children (parents, 26%; children, 4.23%). Children described EF impairments using phrases such as challenges with independence, organization, and transitioning between activities. Parent's descriptions of ADHD included many examples of EF challenges, including "lags" in certain areas, disorganization, impulsivity, and being scattered. The distinction between the number of children compared to parents who commented on EF challenges may be a function of EF knowledge/understanding and the level of cognitive

maturity. Specifically, children with ADHD are reported to have slower pre-frontal cortex growth than non-ADHD children (area affected in EF deficits; Coghill et al., 2014). As children were between the ages of 9 to 12 years, the majority may not have had the cognitive maturity or insight to understand what EF is and how it is impacted by ADHD. Children may understand that they struggle with organization because of their ADHD, but not because of the deficits in EF. Therefore, specific EF deficits may be unreasonable for children to understand. Additionally, parents may have had greater exposure to what EF is and how deficits in EF are associated with ADHD. Further, as parents in the study have children with ADHD, they may have seen the consequences of EF impairments, including their children's disorganized behaviours.

Interestingly, only parents described EF challenges using the word "impulsive". Children may not have been aware of their impulsive decisions and/or reactions or could not verbalize their impulsivity. Awareness may develop over time, as adolescents and adults reported behaviours associated with impulsivity in previous research. For example, Ringer (2020) reported that adolescents felt a lack of control over their behaviour, emotions, and attention. Further, adults with ADHD reported that their inability to control impulses resulted in negative consequences such as speeding tickets (Nyström et al., 2020).

**Positive Attributes.** Both parents and children mentioned positive characteristics associated with ADHD. Interestingly, parent and child descriptors highlighted different areas of strengths. Children described ADHD with social strengths, such as being friendly or sociable, and intellectual strengths, such as being smart, imaginative, and curious. Parents attributed ADHD to artistic strengths, such as being creative and passionate. Both parent and child descriptors implied abstract thinking, using words such as creativity and imagination. Taken together, this theme provides a greater understanding of what characteristics are considered

strengths of ADHD by parents and children. Regardless, positive attributes and characteristics provided by both parties indicate that ADHD is associated with more than just impairment.

**Physical and Mental Energy.** Parents and children indicated common ADHD-HI and ADHD-C symptoms, including excessive fidgeting and restlessness, and “driven by an internal motor” (APA, 2022). Additionally, a common word provided was “energy”. Describing ADHD using the term “high energy” has been viewed both favourably and as a deficit (e.g., de Schipper et al., 2015; Ringer & Cerniglia, 2019). ADHD described as high energy related to hyperactivity may indicate too much energy in an unfavourable context (e.g., hyperactivity in school is often not favourable). Alternatively, high energy used in a favourable context may include a child with ADHD participating in sporting events where energy can be utilized to optimize one’s passion, focus, and motivation. Additionally, describing ADHD with terms such as “energy”, “active”, or “busy” may reflect positive cognitive reframing. For example, participants may reframe traditional symptoms such as hyperactivity, which often holds a negative connotation, to high energy. Seeing increased energy as having a heightened capacity to engage in activities, both mentally and physically, promotes positive thinking and behaviours.

**Heightened Emotions (and Behaviours).** Parents and children described ADHD with words that alluded to intensified behaviours and emotions. Words such as emotional, sensitive, dysregulation, easily annoyed, and variable were used to describe ADHD. Highlighting emotional factors associated with ADHD is relevant given that research is exploring the role emotional dysregulation plays in ADHD symptomology (Graziano & Garcia, 2016). Some children with ADHD have difficulty coding and processing emotional information, in addition to high emotional reactivity to stressful and frustrating events (Graziano & Garcia, 2016). As behaviours are often consequences of emotional states, high emotional reactivity may result in

behavioural reactivity. Thus, this theme recognizes the importance of analyzing heightened emotions and behaviours and the impact they may have on ADHD families.

## **Unique Parent Themes**

### ***Negative Feelings and Perceptions***

Parent descriptions of ADHD were associated with negative feelings and perceptions of ADHD. Parents used similar describing words, including difficult, frustrating, and challenging. Parents may be expressing general frustrations with ADHD, such as describing difficulties related to the symptoms of ADHD, including emotional dysregulation, social problems, and academic challenges. However, they may also be expressing frustration with ADHD as a consequence of their experiences with ADHD. As previously discussed, family conflict in ADHD families is higher than in non-ADHD families (Climie & Mitchell, 2017). Regardless, frustration with ADHD indicates that ADHD elicits an emotional reaction because of the symptoms and behaviours that arise. Providing parents with an outlet to express frustrations may be necessary given the challenges associated with ADHD. However, incorporating strength-based thinking or strategies to support parents in times of frustration may promote more positive thinking about ADHD.

## **Unique Child Themes**

### ***Challenges of ADHD***

Children described the challenges of ADHD by alluding to sleep disturbances and added difficulty in some activities. Sleep disturbances are commonly reported by individuals with ADHD and may affect one's mood, attention, behaviours, and health (Wajszilber et al., 2018). Further, children with ADHD may experience difficulties in a myriad of activities, including academic (Czamara et al., 2013) and/or social (Ogg et al., 2016) activities. Therefore, children's



responses coincided with the challenging experiences of ADHD presented in the research. Therefore, this category highlights the need to target and address impairments in functioning that are a byproduct of ADHD symptomology.

### ***School Challenges***

Associating ADHD with school difficulties is unsurprising given that ADHD has been found to impact school success (e.g., Daley & Birchwood, 2009; Morsink et al., 2020). Children mentioned both academic and behavioural challenges at school that are related to ADHD. Examples provided by child respondents included challenges with studying and grades. Thus, children with ADHD are aware of, and can generally describe, ways in which ADHD impacts their academic success. Behavioural challenges mentioned by the children demonstrate their understanding of how ADHD can impact one's engagement in school functioning (e.g., working/learning). Understanding which behaviours impact the child's school success allows for schools to integrate supportive services that target their unique academic and behavioural needs.

Interestingly, only children described ADHD as relating to school challenges. Parents may be aware of school challenges that are associated with ADHD, but the substantial impact of ADHD on school functioning lies with the children. Children must cope with ADHD-related behaviours and consequences daily in a classroom. From interacting with peers to understanding and following teacher instruction, to maintaining attention over long periods, children with ADHD must deal with constant stimuli and distractions. As well, the pandemic may have significantly impacted school accessibility and flexibility, which may have differentially affected children with ADHD (Panagouli et al., 2021). School challenges may be amplified because of these factors. Therefore, children addressing school challenges as synonymous with ADHD

provides insight into the extent to which school functioning is perceived to be affected by ADHD.

### ***Negative Attitudes, Attributes, and Perceptions***

ADHD was described using words that implied negative attitudes, attributes, and perceptions (“rude” and “not very friendly”). If children interact with others who have ADHD that behave in socially inappropriate or unacceptable manners, they may negatively generalize ADHD. Bisset et al. (2021) reported that negative attitudes are more likely to be associated with peers with ADHD, including similar negative perceptions such as distancing oneself from children with ADHD. Further, Bellanca and Pote (2012) reported that children express more negative attitudes towards children with ADHD than those without ADHD.

Alternatively, negative descriptions may be self-reflective, where ADHD is associated with a negative view of oneself and their identity (Ringer, 2020). Ringer (2020) reported that individuals with ADHD described themselves as “bad”, expressing negative perceptions about oneself. Lastly, children associated ADHD with words such as hard, difficult, or annoying. As there is no context provided, these words may be attributed with multiple meanings. A word such as annoying could be attributed with children describing themselves (or those with ADHD) as annoying. However, annoying may also mean that ADHD itself is perceived overall as challenging or that ADHD is associated with bothersome behaviours. Regardless, negative terminology was used to describe ADHD by some children in the study.

### ***Behavioural Consequences***

Children described some actions and reactions to situations as being a consequence of ADHD symptomology. For example, children attributed ADHD with yelling a lot, finding it hard to stay calm, fighting with parents, and being overreactive. As such, children may associate

ADHD behaviours with heightened emotions that influence behavioural consequences (e.g., emotional and behavioural dysregulation). Interestingly, the majority of behavioural consequences included social conflict (e.g., fighting with parents) and emotional reactions (e.g., yelling a lot, anger issues, and being overreactive). As such, increased conflict with families, such as “fighting with parents a lot”, may be a byproduct of ADHD family dynamics (Climie & Mitchell, 2017). Beyond one’s family, personal relationships with peers may be impacted by ADHD emotions and behaviours. Perceiving ADHD as being associated with behavioural and social consequences (and heightened emotions/behaviours) can inform interventions and strategies that positively reinforce children’s coping strategies and consequences.

Taken together, there are several parent and child categories that describe ADHD. Similar categories represent congruent understandings of ADHD, while individual categories demonstrate the unique experiences of each group. Future research examining more in-depth qualitative questions aimed at developing a greater understanding of ADHD descriptors is recommended.

#### **Research Question Four**

The final research question sought to categorize the child and parent descriptions of ADHD into three categories: positive, neutral, and negative. Once each word was categorized, the total number of words per category was calculated to determine which category associated with ADHD yielded the most words in both the parent and child groups.

#### ***Parent ADHD Descriptions***

Parent’s descriptions of ADHD fell primarily in either the negative or neutral categories, encompassing over 90% of the words provided. The greatest number of words fell in the negative category (47%), followed closely by the neutral category (44%). As parents’ most

frequent response to ADHD was negative, it may be that parents perceive ADHD through a deficit-based lens. Parents may have internalized and accepted ADHD as encompassing the negative behaviours that are often associated with ADHD, such as “unmotivated and defiant”. Further, negative descriptions of ADHD may be influenced by others’ animosity, stigmatization of ADHD, or experiences with ADHD. Alternatively, negative connotations of ADHD may be attributed to strained family dynamics, such as familial conflict. Given that all the parents in this study have at least one child with ADHD, viewing ADHD through a negative lens is disheartening. If parents discuss ADHD negatively with their children, it may influence their children’s perception of ADHD. Their children may feel ashamed, upset, or conflicted, knowing that they have a disorder that their parents perceive to be negative.

Neutral descriptions included ADHD symptomology and descriptors (e.g., attention). As such, parents may view ADHD from a systematic lens, breaking ADHD down into its symptoms and characteristics. Further, parents may describe ADHD strictly from a classification lens, where a certain combination of symptoms and behaviours equate to a diagnosis. Regardless, viewing ADHD through a neutral lens may be beneficial. Parents may be more open to learning and understanding ADHD to better support their child’s functioning than a parent who views ADHD negatively. Alternatively, parents may choose to describe ADHD through an objective lens rather than commenting on challenges they experienced as a parent. Lastly, social desirability may influence parent responses. The current study was presented as strength-based, thus parents may have opted for neutral expressions if they could not think of any positive ones to avoid negative language.

Only nine percent of the words parents used to describe ADHD were positive. Interestingly, the word that was most often used to describe ADHD was “creativity”. Creativity

is a common characteristic used to describe children with ADHD in the literature (de Schipper et al., 2015; Mahdi et al., 2017; Redshaw & McCormack, 2021). Creativity can be defined as “the tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others”, (Franken, 1994, p. 396). Therefore, parents describing ADHD (or children with ADHD) as creative demonstrates their positive outlook on ADHD.

However, the limited number of favourable responses indicates that there is a need for greater ADHD education and experiences that highlight positive language. Parents may be unaware of the many positive characteristics of ADHD, including energy and drive, hyperfocus, resiliency, agreeableness, and flexibility (Redshaw & McCormack, 2021). Further, research is exploring additional positive qualities linked to ADHD including divergent thinking, self-acceptance, and adventurousness (Redshaw & McCormack, 2021). Educating parents on the optimistic research trajectories of ADHD, while also validating the challenges of ADHD, may shift the narrative of ADHD.

### ***Child ADHD Descriptions***

Children described ADHD through general descriptions of symptoms (e.g., "attention") or personal experiences with ADHD (e.g., "I get along with everyone"). Children may have found it easier to provide words that aligned with their experiences, given their personal perspectives. However, children's negative perceptions of ADHD composed over two-thirds of the descriptions. The large number of negative responses is not unexpected, but a discussion regarding potential reasons for predominately negative attitudes is necessary.

ADHD is still largely seen in society through a deficit-based lens. Parents, teachers, and peers may subscribe to the belief that ADHD is negative and problematic. Consequently,

children may have internalized others' unfavourable opinions of ADHD and therefore understand ADHD to be inferior or debilitating (i.e., internalizing stigma associated with ADHD). As almost 50% of the words in the parent sample indicated negative connotations of ADHD, children could be reflecting their parents' negative beliefs. Further, parents may only discuss the negative aspects of ADHD with their children, instead of recognizing positive aspects. Therefore, children with ADHD may not have been exposed to positive descriptions of ADHD. In a school setting, teachers who perceive ADHD negatively and who have little knowledge of ADHD, may negatively influence students' academic and social success (Anderson et al., 2012). In fact, teachers' attitudes towards ADHD may influence their teaching approaches, management strategies, and peers' perceptions of a child with ADHD (Anderson et al., 2012). In a community setting, Bellanca and Pote (2012) found that children rated vignettes with ADHD children as more negative than non-ADHD children. However, children who interacted with peers with ADHD reported more positive attitudes towards the ADHD vignette than those who had not (Bellanca & Pote, 2012).

Alternatively, the experiences children have had with ADHD may be primarily negative. They may be aware of the ADHD-related impairments in their functioning in one or more domains (e.g., academic). Children attributed ADHD with getting into trouble at school and finding school/focusing/work is harder. As other children in their class may not struggle in these areas, children may perceive ADHD as the reason for their difficulties.

Noteworthy, the current Covid-19 pandemic may have impacted responses. These children dealt with multiple shifts from in-person to online learning (and back) and encountered drastic changes in their school environment, teaching platforms, and expectations. During this time, their ADHD symptoms may have impacted school functioning to a greater extent as there

were more unknowns. Thus, children's negative perceptions of ADHD as a function of their school experience may be even more profound given the recent schooling circumstances.

Less than 25% of the words provided were categorized as neutral. Similar to parents, some responses reiterated ADHD symptoms (e.g., hyperactivity) or common words that were associated with ADHD (e.g., different; disorder). Further, some words related to personal experience (e.g., "I go in my own world sometimes"). Some children also described ADHD as being neither detrimental or beneficial to their functioning or success (e.g., jumpy, the need to wiggle). The words provided in this category indicate that children have some understanding of the behaviours that are attributed to ADHD.

Only six of the words provided by the children were categorized as positive. Unlike parent responses, there were no patterns in described strengths. Social, intellectual, and physical strengths were provided. Providing a variety of strengths is insightful as it shows that positive characteristics associated with ADHD were not limited to specific domains. Instead, some positives of ADHD were interpreted by children in unique and meaningful ways. Some of the positives were directly relevant to ADHD symptomology, such as "super focus" and "having a bit more energy". Thus, some participants felt like ADHD was an asset to their functioning. It is encouraging to see that some children perceive aspects of ADHD as beneficial to their functioning. Positive language associated with ADHD can be incorporated into multiple settings to promote a more optimistic understanding of ADHD.

Overall, many children indicated personal feelings and behaviours that were synonymous with ADHD. By doing so, children seem to convey that ADHD is a part of their identity. Describing symptoms and traits, and how they influence their daily functioning, speaks to their internalized understanding of how ADHD is not separate from their being. For example, seeing

themselves as different from peers because of their ADHD may indicate that their ADHD is a core trait of who they are. Seeing ADHD as part of one's identity may hinder or support their functioning (Jones & Hesse, 2017), as descriptions of ADHD are tied with who the children perceive themselves to be.

### **Limitations**

**Sample Limitations.** The different presentations of ADHD (i.e., ADHD-HI, ADHD-IA, and ADHD-C) were analyzed as one ADHD group. Differences in reported strengths may exist between the three presentations of ADHD. Strengths or descriptions of ADHD from a child/parent may differ in a family that has an ADHD-HI presentation from an ADHD-C presentation. Future research should consider the potential differences in reported strengths between parents and their children with separate presentations.

Additionally, almost 75% of the parents reported that their children were on medication. Medication may reduce symptoms, which may affect ratings in any number of areas. The current study did not evaluate differences in reported strengths for those taking medication versus those not taking medication. In the future, researchers could control for the effect of medication to evaluate potential differences in reported strengths between children taking medication versus children not taking medication.

Further, the small sample size may have limited the power in the study to detect statistically and clinically significant differences between parent and child reports of strengths. Future research should replicate the study with a greater sample size to increase power to allow differences to be detected.

Lastly, although this study attempted to recruit both mothers and fathers to participate, the majority of the parents who participated were mothers. As mothers may rate their children's



strengths differently than fathers, the parent perspective may not have been wholly represented. Therefore, this study may represent a mother's perspective of a child's strengths as opposed to a parent perspective.

**Self-Report Challenges.** The reliance on self-report responses, while often used as a means of data collection, can pose concerns regarding reporting accuracy or bias. As previously mentioned, literature has established that children with ADHD may overestimate their competencies (e.g., Hoza et al., 2002). However, one mechanism to increase the validity of self-reports is by using multiple informants. In the current study, multiple informants (parents and children) were used to better understand strength ratings. As most of the results were consistent, the validity of the results is stronger; however, there is still room for inaccuracy or erroneous conclusions.

**Measurement Limitations.** In the current study, only one measure (BERS-2) was used to assess parent-child reported strengths. As the BERS-2 covers just five areas of strengths, it may be advantageous to include additional strengths measures, or alternative strengths measures, that elicit an understanding of strengths domains beyond the ones covered by the BERS-2.

Additionally, the BERS-2 recognizes only male and female genders on parent and child ratings. Unfortunately, this meant that children who identified as nonbinary were not included in this analysis as there were no norms for this group. Moreover, the BERS-2 is limiting as children's strengths are not normed by age. Children develop rapidly and undergo several social, emotional, and cognitive changes during childhood (Rubin et al., 2004). Children's perceptions of their abilities may shift as they develop (Fredricks & Eccles, 2002); thus their perception of their strengths may also shift. For example, children's perception of their level of family involvement may be stronger at age 9 and weaker at age 12 as peer relationships become more

prominent as the child reaches their adolescent years and may value peer friendships more (Rubin et al., 2004). Therefore, assuming one's perception of strengths are consistent across childhood, without exploring age, limits the depth of information gathered and conclusions drawn.

**Interpreting Descriptions of ADHD.** Research questions three and four relied on the interpretation of words stated by parents and children. Placing words in categories assumes that the researchers correctly interpreted the meaning behind the words. As interpreting meaning is subjective, there is potential for misinterpretation. For example, the word busy was interpreted by the researchers as a neutral word. However, the participants may have described busy with positive or negative connotations depending on the context the word was interpreted in. As there was no definitive indication of what the one-word statements meant, the potential for misinterpretation remains. Thus, an interview with participants to inquire about descriptor meanings would clarify intent.

### **Implications**

The current study has implications for many different groups. First, this study has implications for children with ADHD. This study allowed children with ADHD to reflect on areas of functioning in which they feel successful. As ADHD research is often deficit-based, allowing these children to identify their positive characteristics, relationships, and emotional and behavioural functioning is essential in promoting optimistic perspectives on children with ADHD. Children with ADHD may feel empowered to continue to perform to the best of their abilities (Frame, 2003). Additionally, feeling a sense of empowerment may motivate children with ADHD to address and/or overcome the challenges they face as a consequence of the symptoms of ADHD. In turn, an increase in children's optimism may reduce the likelihood of

negative outcomes associated with ADHD symptomology, including low self-esteem and mental health issues (Frame, 2003).

Children were able to coherently describe ADHD and indicated a general understanding of the symptoms of ADHD and how they may affect one's feelings, thoughts, and behaviours (Klimkeit et al., 2006). As children's abilities to report on behaviours and internal states in relation to ADHD are debated due to their perceived difficulties in self-awareness and self-reflection, these results demonstrate that children's descriptions of ADHD are valuable in understanding how ADHD is perceived. Children's views of ADHD should be considered in ADHD research to ensure children with ADHD are understood and appreciated. Further, through education and intervention, children's perceptions of ADHD can be explored to in hopes of transitioning a primarily negative view of ADHD to a more positive view.

This study also has implications for parents of children with ADHD. First, a strength-based study provides parents with a platform to express their positive perspectives to support optimistic ADHD attitudes. By understanding where strengths of children with ADHD lie, parents have the knowledge necessary to advocate for their children's strengths while supporting areas of weakness (e.g., school functioning). Parents rating the children's family functioning as Below Average indicates an area of growth and thus, potential ways to target support to enhance family dynamics. Targeted supports for family involvement may include navigating services that provide emotional support or coping skills in times of difficulty (Herbell et al., 2020). Further, if decreased family involvement is a consequence of conflict, services which support parental emotional regulation as well as coach families to cope and adapt to stressors, may increase positive family involvement (Herbell et al., 2020).

Largely, parents defined ADHD using negative terminology. Negative perceptions of ADHD indicates that there is a greater need to spread awareness of the positive characteristics and attributes that can coincide with ADHD (e.g., increased energy and creativity). As parents guide children in developing their beliefs about the child's development and competencies (Sigel et al., 1992), highlighting the positive aspects of ADHD is necessary to support optimistic outcomes. Much of the literature regarding beliefs about ADHD surrounds medication usage (e.g., Johnston et al., 2005); however, the influence parents have regarding perceptions of ADHD is still prevalent and should be addressed. Thus, this study serves as a foundation for further research into understanding how to positively shift the narrative of ADHD.

This project also has implications for strength-based research more broadly. Currently, child participation in strength-based is limited, as reports are provided by parents or an adult figure. Although parental perspectives are valuable, children's perspectives of their strengths are equally valuable. Therefore, this project demonstrates that children with ADHD deserve to be recognized and consulted about their experiences to holistically understand their strengths. Further, this study encourages families with ADHD to celebrate and advocate for their children's strengths, as they recognize that children with ADHD embody positive characteristics regardless of the potential challenges their diagnosis of ADHD may come with. Beyond giving children with ADHD a voice in strength-based research, redefining how ADHD is viewed in the community may motivate families to advocate for supports as well as destigmatize the perception of ADHD through an optimistic lens.

### **Future Directions**

There are numerous ways in which the present study could be expanded. First, the study could be replicated and include a larger sample of children with ADHD. As there was a limited

sample size, increasing the number of children (and parents) to report on strengths may increase power to better determine rating congruency and discrepancies of children's strengths. An increase in power will increase the generalizability of the findings, encouraging real-world facilitation and application (Polit & Beck, 2010). Additionally, expanding the age range to include older children may further comprehension surrounding perceptions of strengths. As the BERS-2 measure includes children up to the of 17:11, including a more diverse age sample and analyzing the strength ratings would provide greater insight into how strength domains are affected by age. Age may also contribute to the congruency of parent-child reports and would be beneficial to investigate. Following, longitudinal analyses of strengths may be beneficial to explore in families. As children and parent perceptions may change overtime, tracking and investigating the changes of strengths ratings longitudinally is necessary.

Second, the current study examined only parent and child perspectives on child strengths. Future research could examine strength-based ratings from teachers in addition to parents and children. As children spend roughly six hours each weekday at school, and much of this time is spent in the classroom, teachers may be able to provide a unique perspective on children's areas of strength. For example, teachers may be able to highlight specific areas of functioning at school, including the child's academic strengths and weaknesses, the child's relationships with staff and students, and strategies the teachers use to support the child interpersonally and academically.

Questions related to parent and child descriptions of ADHD were largely exploratory. Although valuable information was given regarding attitudes towards ADHD and categories in which parent-child descriptions would qualify, the information given was brief and without explanation. Future research analyzing descriptions of ADHD and attitudes towards ADHD in

greater depth is recommended. One way to analyze descriptions and attitudes may be to undergo deeper qualitative research in which interviews are conducted with parents and children to better understand descriptor reasoning. Further, as attitudes towards ADHD were primarily negative, uncovering information as to why negative attitudes were prominent is necessary. Alternatively, a few parents and children described ADHD using positive terminology. Greater examination as to why these individuals provided optimistic characteristics of ADHD when the majority provided negative descriptions, is necessary.

### **Conclusion**

Results of the current study demonstrated that parents and children with ADHD perceived the children to have similar strengths to peers. Families, schools, and communities can continue to support children with ADHD to optimize their functioning and growth. Additionally, ADHD is still often described with negative connotations, which is especially concerning coming from an ADHD population. Encouraging greater research, education, and initiatives to promote positive, strength-based thinking surrounding ADHD is necessary to instill more optimistic thinking.

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## Appendix A

### Parent and Child Demographic Survey

#### Parent

Please complete the following primary caregiver(s) questions (each caregiver will have a separate section).

Please fill out the following questions for primary caregiver #1. This should be the person completing the survey.

What ethnicity do you identify with?

- Black/African Canadian
- White/Caucasian/European
- First Nation or Métis
- Latino/Hispanic
- Asian
- Middle Eastern/Arabic
- East Asian
- Native Hawaiian or Pacific Islander
- South Asian/ Indian
- Other, Specify:

What language(s) do you speak at home?

- English
- French
- Other

What gender do you identify as?

- Male
- Female
- Non-binary / third gender
- Other

What is your highest level of education achieved to date?

- Less Than High School
- Some High School
- High School Diploma
- Some College/University
- College Diploma
- Undergraduate Degree
- Graduate Degree
- Doctorate

- Other, Specify:

What is your current occupation?

What is your current household income?

- Under \$25,000
- \$26,000 - \$50,000
- \$51,000 - \$75,000
- \$76,000 - \$100,000
- Over \$100,000
- Prefer not to answer

What is your relationship to the child?

- Biological Mother
- Biological Father
- Stepmother
- Stepfather
- Foster Mother
- Foster Father
- Adopted Mother
- Adopted Father
- Aunt
- Uncle
- Grandmother
- Grandfather
- Other, Specify:

Please fill out the following questions for primary caregiver #2 (if applicable). If there is only one caregiver, please skip to the next page.

What ethnicity do you identify with?

- Black/African Canadian
- White/Caucasian/European
- First Nation or Métis
- Latino/Hispanic
- Asian
- Middle Eastern/Arabic
- East Asian
- Native Hawaiian or Pacific Islander
- South Asian/ Indian
- Other, Specify:

What language(s) do you speak at home?

- English
- French
- Other

What gender do you identify as?

- Male
- Female
- Non-binary / third gender
- Other

What is your highest level of education achieved to date?

- Less Than High School
- Some High School
- High School Diploma
- Some College/University
- College Diploma
- Undergraduate Degree
- Graduate Degree
- Doctorate
- Other, Specify:

What is your current occupation?

What is your current household income?

- Under \$25,000
- \$26,000 - \$50,000
- \$51,000 - \$75,000
- \$76,000 - \$100,000
- Over \$100,000
- Prefer not to answer

What is your relationship to the child?

- Biological Mother
- Biological Father
- Stepmother
- Stepfather
- Foster Mother
- Foster Father
- Adopted Mother
- Adopted Father
- Aunt
- Uncle
- Grandmother
- Grandfather
- Other, Specify:

## **Child**

Do you have ADHD?

- Yes, I have ADHD
- No, I don't have ADHD



How old are you?

- 7 years old
- 8 years old
- 9 years old
- 10 years old
- 11 years old
- 12 years old
- 13 years old
- 14 years old
- 15 years old
- 16 years old
- 17 years old

How do you identify your ethnicity?

- Black/African Canadian
- White/Caucasian/European
- First Nation or Métis
- Latino/Hispanic
- Asian
- Middle Eastern/Arabic
- East Asian
- South Asian/Indian
- Other, Specify:

What gender do you identify with?

- Female
- Male
- Non-binary/third party
- Other

How many siblings do you have?

- 0
- 1
- 2
- 3+

What format of school did you attend last year (2020-2021)?

- Online/Virtual
- Homeschooling
- At School/Face-to-face
- Both online and at school
- Other

Do you like going to school?

- Yes
- Mostly
- Sometimes

- No
- Other

Please rate your current academic performance from:

	Significantly Below Grade Level	Somewhat Below Grade Level	At Grade Level	Somewhat Above Grade Level	Significantly Above Grade Level
Math					
Reading					
Writing					
Social Studies					
Science					
Art					
Physical Education (Gym)					
Overall					

## **Appendix B**

### **Question Posed for ADHD Description in Parent and Child Survey**

Please indicate 3 words that you think describe Attention-Deficit/Hyperactivity Disorder (ADHD).

## Appendix C

### Word Frequency Count for Parents and Children

#### *Parent Word and Frequency Count to Describe ADHD*

Physical & Mental Energy	Feeling Different	Positive Attributes	Heightened Emotions & Behaviour	EF Challenges	Attention challenges	Negative Feelings/ Perceptions
Active	Atypical	Creative	Emotional	EF lag at a young age	Lack focus	Infuriating
Busy	Different	passionate	Sensitive	writing lag	lack of focus	Annoying
Energy	different different way of	manageable	Dysregulation	Forgetful	unfocused	Challenging
High energy	thinking	creative	variable	lack of time	Squirrely	Complicated
Hyper	Stigma	Creative		Disorganized	unmotivated	Defiant
Fidgety	stigmatized			Messy	inattention	Difficult
Restless	Misunderstood			Scattered	unfocused	Frustrating
Fast brain	disability			Chaotic	unaware	Frustrated
Hyperfocus				impulsive	Lack of focus/inattention	Hard on them
Hyper focused				impulsive	unfocused	Struggle
talkative				impulsive	Distracted	Emotional volatility
active				impulsive	Distracted	Invisible
Busy				inattentive	Distracted	complicated
Busy				impulsive	distracted	Frustrating
Busy				inattentive	distracted	Frustrating
Fidgety				impulsive		Challenging
Busy				impulsive		Frustrating
Fidgety				inattention		Challenging
hyperactivity				impulsive		
hyperactive				Scattered		
driven by an						
internal motor				Scattered		

Physical & Mental Energy	Feeling Different	Positive Attributes	Heightened Emotions & Behaviour	EF Challenges	Attention challenges	Negative Feelings/ Perceptions
hyperactive				lack of time management and organization		
busy				scattered Disorganized Scattered Disorganized Forgetful Messy disorganized		

*Child Word and Frequency Count to Describe ADHD*

Physical and Mental Energy	Feeling Different	School challenges	Attention challenges	Challenges of ADHD	Heightened Emotions	Negative Attitudes, Attributes, & Perceptions	Positive Attributes	EF-related Challenges	Behavioural Consequences
Energy	Different	affects learning	Attention	some things are difficult	emotional	not very friendly	friendly	struggle with independence	overreact
go a little crazy (energy)	A little different	Trouble with school	not paying attention	stress		Little bit rude	sociable	not organized	yells a lot
Makes me restless	disorder	detention	can't focus well	Struggling			imaginative	hard to transition between activities	fight with parents
Always fidgeting	Special needs - humiliation	impacts grades	hard to focus	harder to sleep			Smart		hard to stay calm
fidgeting		frustrating learning	less focused	easily annoyed			Sometimes curious		anger issues
fidgety		trouble with school	Makes me focus less	difficult					I get mad
restless		working/studying is harder	Unfocused	hard					Little overreactive
Need to wiggle		Affects me at school	someone asks you to do something but you don't (distracted)	Little annoying					
hyper			Distracted						
Hyperactivity			always looking around for something (looking around)						

Physical and Mental Energy	Feeling Different	School challenges	Attention challenges	Challenges of ADHD	Heightened Emotions	Negative Attitudes, Attributes, & Perceptions	Positive Attributes	EF-related Challenges	Behavioural Consequences
jumpy			Distracted						
hyperactivity = out of control			Distraction						
super focused a bit more energy			talking with friends when you're not supposed to						
			listening (sometimes a lot or less)						
			listening						
			go into my own world						
			sometimes						
			one moment thinking of something, next moment trying to remember what you were thinking about						
			taking attention away from teacher (distracting)						
			poor concentration						
			can't concentrate						
			listening						
			forgetful						
			hard to remember						
			remembering						

## Appendix D

### Categorized Connotation of ADHD Descriptions for Parents and Children

#### *Categorization of Parent Description of ADHD*

Positive	Neutral	Negative
active	fidgety	Scattered
creative	Busy	Forgetful
energy	invisible	Messy
creative	variable	lack focus
active	Busy	Hyper
high energy	complicated	unmotivated
creative	squirrely	Annoying
passionate	different	unfocused
hyperfocus	different	Scattered
	different way of thinking	distracted
	complicated	frustrating
	hard on them	Scattered
	talkative	frustrating
	manageable	unfocused
	Busy	Unaware
	hyper focused	frustrating
	fast brain	Lack of focus/inattention
		lack or time management and organization
	Busy	Scattered
	sensitive	Scattered
	fidgety	infuriating
	Busy	unfocused
	fidgety	challenging
	Busy	Struggle
	inattention	Restless
	hyperactivity	disorganized
	impulsive	Atypical
	impulsive	emotional volatility
	impulsive	challenging
	misunderstood	dysregulation
	hyperactive	Chaotic
		Frustrating



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Positive	Neutral	Negative
	impulsive	challenging
	inattentive	defiant
	impulsive	frustrated
	driven by an internal motor	difficult
	inattentive	distracted
	hyperactive	disorganized
	impulsive	forgetful
	disability	scattered
	inattention	disorganized
	impulsive	distracted
	hyperactive	Messy
		distracted
		disorganized
		executive functioning skills
		lagging at a young age
		writing lag
		Emotional
		Stigma
		Stigmatized
		Lack of time
		Lack of focus

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*Categorization of the Child Descriptions of ADHD*

Positive	Negative	Neutral
Smart	Unfocused	always looking around for something (looking around)
get along with almost everyone (sociable)	Always fidgeting	a little different
imaginative	Hard	go a little crazy (energy)
super focused	someone asks you to do something but you don't (distracted)	need to wiggle
sometimes curious	little overreactive	listening (sometimes a lot or less)
friendly (in their own way)	Struggling	Jumpy
a bit more energy	hard to transition btw activities	Different
energy	independence (struggles)	Listening
	humiliation (meaning its about being that one kid who is special needs)	Hyperactivity
	detention (distracted causing)	Attention Disorder
	distraction	go into own world sometimes
	Distracted	fidgeting
	Less focused	Fidgety
	not paying attention	one moment thinking of something, next moment trying to remember what you were thinking about
	talking to your friends when you're not supposed to (talking too much)	remembering
	taking attention away from your teacher (distracting people)	
	little annoying	listening
	makes me focus less	listening
	impacts grades	
	makes me restless	
	Distracted	
	trouble with school	
	learning (like learning, can be frustrating if hard)	

Positive	Negative	Neutral
	has anger issues	
	not very friendly	
	affects learning	
	poor concentration	
	<b>Stress</b>	
	working (like when doing work like studying and its harder)	
	I get mad	
	sometimes fight with parents	
	affects me at school	
	some things are difficult	
	<b>Difficult</b>	
	little bit rude	
	yells a lot	
	<b>Overreact</b>	
	not organized	
	if they had hyperactivity they would be like out of control	
	hard to remember stuff	
	sometimes	
	Can't concentrate	
	<b>Forgetful</b>	
	hard to stay calm	
	<b>Restless</b>	
	harder to sleep	
	<b>Emotional</b>	
	Easily annoyed	
	<b>Hyper</b>	
	Can't focus well	
	Hard to focus	