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EMOTIONS, COGNITIONS, AND DISCIPLINE STYLE IN PARENTS OF YOUTH WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

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EMOTIONS, COGNITIONS, AND DISCIPLINE STYLE IN PARENTS OF YOUTH WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

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ABSTRACT

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Raising a child with a neurodevelopmental disorder places tremendous stress on parents, which can interfere with their parenting skills more than the stress of raising a typically developing child. Parents' levels of emotions, irrational and rational beliefs, self-compassion, psychological flexibility and overreactive and lax parenting discipline style were analyzed. Two hundred and eighty-five parents of children and adolescents aged 6-18 completed several self-report measures. Results indicated that there were significant correlations between parents' irrational beliefs, self-compassion, psychological flexibility, and negative emotions in both the clinical and non-clinical groups. Further, parents of ADHD youth reported experiencing less psychological flexibility and less self-compassion than reported by parents in the nonclinical group. Regression analyses indicated that parents' irrational beliefs and parents' psychological flexibility were a significant predictor of frequency of parents' negative emotions. Also, parents who reported greater negative emotions and less psychological flexibility were more likely to utilize an overreactive discipline style. These findings highlight specific variables to target in treatment that will allow parents to experience less stress and negative emotions and better learn and implement the best parenting skills to help their ADHD children. Interventions should focus on the influential role psychological flexibility plays in reducing parents' engagement in negative parenting practices and the overall experience of negative emotions in the context of parenting.

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Chapter I

Introduction

Statement of Problem

Raising a child with a neurodevelopmental disorder places tremendous stress on parents, which can interfere with their parenting skills more than the stress of raising a typically developing child. Even among neurodevelopmental disorders, there is considerable variation in parenting stress. For example, parents of children with Attention Deficit Hyperactivity Disorder (ADHD) experience greater levels of parenting stress than parents with children with Autism (Miranda et al., 2015).

The core symptoms of ADHD, such as inattention, hyperactivity, and impulsivity, are associated with significant impairments in a child's social, cognitive, academic, and behavioral functioning (Hoza et al., 2005; Mash & Barkley, 2003). These features of ADHD challenge parents from managing their child's symptoms and, in turn, result in more parenting stress. These ADHD symptoms can also lead to a dysfunctional parent-child relationship in which ADHD children are seen as more talkative, negative, demanding, and less cooperative and independent than children without ADHD (Anastopoulos et al., 2009). Research has indicated that perceived impairments in their child's self-regulation across emotional, cognitive, and behavioral domains is most stressful for parents (Graziano et al., 2011). Additionally, research has illustrated the cyclical nature of these effects. Parenting behavior can influence a child's behavior, and the child's behavior can, in turn, influence parenting behavior (Munoz-Silva et al., 2017).

Children and adolescents with ADHD are more likely to develop maladaptive coping strategies, including avoidance and procrastination, as well as decreased social

skills, such as poor peer or familial relationships, riskier sexual activity, and increased peer victimization/bullying (Harpin et al., 2013). Positive parenting practices facilitate positive youth development (Wang & Sheikh-Khalil, 2014). Additionally, positive parenting practices have promising results in reducing negative outcomes for externalizing behaviors commonly associated with ADHD (Anahita et al., 2015). Due to the developmental importance of childhood and early adolescence, parents of children with ADHD must be educated about the effects of negative emotions and cognitions on their parenting behaviors and, ultimately, their child's lifelong outcomes.

This research explored the psychological and emotional variables that interfere with parenting skills. By identifying such variables, psychologists would know which variable to target in treatment that will allow parents to experience less stress and negative emotions and better learn and implement the best parenting skills to help their ADHD children.

The cognitions and emotions experienced by parents can negatively impact their parenting behavior. The current view in emotion theory stresses that emotions motivate behavior, preparing individuals for action (Izard, 1991). Misbehavior by children in discipline encounters elicit negative emotions in the parents because child misbehavior conflicts with the parents' goals (Lorber & O'Leary, 2005). As a result, high negative emotions lead to parents engaging in overreactive discipline to stop the unpleasant behavior. When parents experience anxiety, depression, and anger, they are likelier to engage in poor parenting practices. The research has demonstrated that parents of children with ADHD are more likely to experience symptoms of anxiety and depression in comparison to typically developing children (Kashdan et al., 2004). Parents' cognitions

are also found to influence parenting behavior, both directly and indirectly, by arousing negative dysfunctional emotions. Parent cognitions shape parents' sense of self, help to organize parenting, and contribute to determining how much time, effort, and energy they should expend in parenting (Bornstein et al., 2018). Parents who view themselves as efficacious and competent tend to enlist more positive parenting practices, such as being more responsive, expressing greater empathy, using less punitive discipline, and holding more developmentally appropriate expectations (Meunieer et al., 2011; De Haan et al., 2009). Research on this topic with parents of neurotypical children is robust and plentiful. However, research examining the role of parental emotions and cognitions on their parenting behaviors in a clinical population, specifically parents of children with ADHD, is lacking. Research on this topic is necessary to develop parental education programs and provide supportive interventions, so parents feel better equipped to handle the stressors of parenting a child with ADHD.

Review of Literature

Emotions and Parenting

Children learn about emotions through parental emotion-related behaviors, which are primarily determined by parental beliefs regarding their own and their children's emotions (Duncombe et al., 2012). High levels of negative emotion predispose parents to utilize emotionally congruent overreactive discipline to terminate unpleasant behavior (Lorber & O'Leary, 2005). Research on ineffective discipline styles has demonstrated emotions' critical role in influencing parenting behaviors. Parents who experience symptoms of anxiety, depression, and anger are more like to engage in poor disciplinary practices with their children (Carpenter & Halberstadt, 2000).

Maternal depression is associated with several detrimental destructive processes and outcomes, including low maternal responsiveness, ineffective parenting, and current and future child conduct problems (Pawlby & Caspi, 2005). Research has highlighted the connection between negative parental emotions and dimensions of ineffective discipline strategies such as overreactive parenting and lax parenting (Leung & Slep, 2006; Lorbery & O'Leary, 2005). While parents of neurotypical children experience problematic behaviors, parents of children with ADHD are at a greater risk for engaging in problematic discipline behaviors because children with ADHD are generally non-compliant and challenging to discipline (Barkley, 2006). Additionally, parents with heightened anxiety levels are more likely to utilize an overreactive discipline style (Robinson et al., 2008). This study attempted to study this path from child behaviors to child parenting.

Cognitions and Parenting

A growing body of literature has investigated the role that cognitions play in parenting behaviors (Bornstein et al., 2018). An enormous amount of research indicates that a person's emotions depend on the cognitive appraisal of the event (David et al., 2002). Cognitive appraisal refers to the "evaluative process that imbues a situational encounter with meaning, such as whether the situation is challenging and positive in implication, stressful and threatening, or controllable (Levy-Shiff et al., 1998). In children, parental cognitions relate to their parenting knowledge, satisfaction, appraisal, and attributions concerning their and their child’s behavior. Parent cognitions shape parents' sense of self, help to organize parenting, and contribute to determining how much time, effort, and energy they should expend in parenting (Bornstein et al., 2018).

Research has shown that parents' attributions concerning their children's behavior relate to parental emotional reactions to the behavior and the parenting behavior that follows misbehavior or the consequences of the child's behavior (Miller, 1995). Parents become more upset by a child's misbehavior if they view it as intentional or believe the child already has the knowledge to behave differently (Hoza et al., 1999). Parents' appraisals of their child's misbehavior influence their discipline strategy, often resulting in harsh or poor discipline style. Mothers who perceive their children's misbehavior as intentional are almost three times more likely to engage in physical punishment than mothers who view their children's misbehavior as unintentional (Ateah & Durrant, 2005). Additionally, a mother's negative appraisal of her child's behavior is positively related to engaging in an overreactive discipline style (DelVecchio & O'Leary, 2008).

Having a child with ADHD can be a significant stressor in family life. Due to the nature of ADHD in children and adolescents, parents can turn to ineffective parenting styles, like overreactive discipline and physical punishment. Parents must learn to adjust and adapt to the stress of parenting a child with ADHD to avoid implementing negative parenting practices, which can negatively influence the quality of the mother-child relationship (Tancred & Greeff, 2015).

Parent Beliefs

Cognitive-Behavior Therapy (CBT) represents one of the most widely used theoretical orientations among psychologists and psychotherapists (Cook et al., 2009). Rational Emotive Behavior Therapy (REBT) represents one of the first theories in the larger family of CBT and has distinctive features from other CBT theories (DiGiuseppe & Doyle, 2010). Also, REBT has a long history of focusing on thoughts, beliefs, and

attitudes that affect parenting (Ellis et al., 1966; see Wolfe, 2014 for a demonstration of using REBT to help parents become effective). While CBT regards dysfunctional thoughts as cognitive distortions, REBT regards dysfunctional thoughts as irrational beliefs (Ellis, 1994). According to REBT, simply having a thought or cognition about a negative reality does not automatically lead to disturbance. Believing the hypothetical event must not happen, that one cannot stand the event happening, and evaluating oneself or others in a negative, global manner are the evaluative attitudes that trigger dysfunctional emotions that can result in maladaptive behavior (DiGiuseppe & Doyle, 2010). REBT identifies five types of irrational beliefs (IBs): demandingness, awfulizing, frustration intolerance, self-condemnation, and other condemnation. The theory suggests that demandingness, or "absolutistic, rigid adherence to an idea," is the core of disturbance and that the other beliefs are less critical and are created from demandingness (DiGiuseppe et al., 2014).

Parent irrational beliefs are characterized by specific negative beliefs but are not endorsed by all parents (Kaya & Hamamci, 2013). Parents could have negative beliefs about parenting or stress management strategies (Ellis et al. 1966; Joyce 2006). Parental beliefs also consist of parents' beliefs about child-rearing, parental expectations, and attribution from their children, parental perceptions of children's behavior, and parental self-efficacy (Azar et al., 2005; Bornstein & Cote, 2004). Parent demandingness refers to an unrealistic expectation of events of themselves as parents, or of others, in this case, their children (DiGiuseppe & Ketler, 2006). Research has established that parental IBs can predict psychopathological symptoms like stress, anxiety, and emotional distress (Hyland et al., 2014; DiLorenzo et al., 2007). Research regarding parents' rational and

IBs has stressed the role these cognitions play in parenting behaviors and the negative impact that irrational beliefs could have on parenting practices (Ellis et al., 1966; Bugenthal & Johnson, 2000). Literature on this topic has shown that the types of attributions parents make about the cause (or causes) of their child's behavior can explain parents' emotional and behavioral responses toward their child (Harrison & Sofronoff, 2002).

Parents of children with special needs are particularly vulnerable to dysfunctional emotions and cognitive and behavioral responses, which could negatively affect their parenting practices (Terjesen & Kurasaki, 2009). For externalizing disorders, parents' distress and psychopathology were strongly linked to their actual parenting practices (Hoza et al., 2000). Regarding the ADHD population, parents of children with ADHD experience negative emotions and irrational beliefs, resulting in poor parenting practices and behaviors (Craig et al., 2016). Research reviewing the application of Rational Emotive-Cognitive Behavior Therapy (RE-CBT) in clinical work with ADHD has identified evidence-based approaches for working with children and adolescents with ADHD. Behavioral parent training (BPT) has strong empirical support and involves clinicians working directly with parents to teach strategies to help manage their children's behavior (Altszuler et al., 2017, cited in Doyle & Terjesen, 2020). We know that parent training can result in positive outcomes for parents, such as increased mental health, a better sense of competence as a parent, and a decrease in negative parenting practices (Dekkers et al., 2021). Recent research has investigated the efficacy of three types of interventions (CBT/REBT, Atomoxetine, and CBT/REBT + Atomoxetine) in reducing ADHD symptoms in children. It was found that combined treatment (CBT/REBT +ATX)

was superior to medication alone (ATX), and no differences were found when compared to psychotherapy alone (David et al., 2020). The research regarding parent training with parents of children with ADHD needs to be expanded upon to strengthen and tailor parent training interventions for children with ADHD.

Parent Self-Compassion

Self-compassion is an emerging area of research in psychology led by Neff. This model proposes to extend by the REBT notion of self-acceptance. "Self-compassion encompasses three main components, each of which has a positive and negative pole that represents compassionate versus uncompassionate behavior; self-kindness versus self-judgment; a sense of common humanity versus isolation, and mindfulness versus over-identification (Neff, 2015)." Self-kindness involves treating oneself with acceptance, understanding, and warmth (Germer & Neff, 2013; Neff, 2015). The negative pole of self-kindness is self-judgment. Self-judgment occurs when one makes a mistake or believes one is less than others, resulting in self-blame and criticism. Self-judgment often results in feeling frustrated, inadequate, and helpless. Common humanity involves recognizing the shared human experience that all humans will fail and make mistakes and that no one lives a perfect life (Neff, 2015). Rather than feeling as if "I" personally am the only one who has failed (isolation), common humanity allows someone to take a more connected perspective, recognizing personal shortcomings and differences amongst individuals (Neff, 2015). The third component, mindfulness, involves being aware of the present moment, including both the positive and negative thoughts and emotions concerning oneself (Germer & Neff, 2013). Mindfulness' negative pole is over

identification. Over-identification can lead to generalizing negative thoughts or feelings to attributes of the self.

Neff et al. (2007) argued that self-esteem and self-compassion differ because self-compassion is a healthier way of relating to the self without evaluation and is related to more positive mental health outcomes and reduced adverse outcomes. Ellis (1994), the founder of REBT, created the construct of unconditional self-acceptance (USA), which he considered an alternative to self-esteem. Ellis (1995) defines unconditional self-acceptance as a process that involves comparing oneself with others and what is considered socially appropriate versus the USA, which accepts oneself unconditionally the way you are. Ellis believed that self-esteem was a dysfunctional way of evaluating one's global worth as a person (i.e., self-rating) (Ellis, 1976). Unconditional self-acceptance and self-compassion share similarities yet are different constructs. Dryden (2013) explored the similarities between USA and self-compassion. Both constructs share the absence of self-judgment and fallibility and the promotion of acceptance, compassion, and change. While mindfulness is hypothesized to play a more significant a greater role in self-compassion than in the USA, where mindfulness serves because of USA and is not a core component, they appear as compatible constructs.

Research has found that self-compassion facilitates a clear mind in people by preventing them from obsessively focusing on their negative emotions and thoughts while simultaneously allowing them to evaluate their negative thoughts and emotion from a different perspective (Neff, 2009). Shame and guilt are often emotions experienced by parents while parenting a child with an externalizing disorder (Scarnier et al., 2009). In the context of parenting, these emotions can reduce confidence in one's parenting

abilities, negatively impact parental identity, and result in parental isolation and dysfunctional parenting (Kim et al., 2011). Self-compassion is an individual difference that may protect against negative feelings after a problematic parenting event. There is not much research examining self-compassion in parents with children with ADHD. Research with parents whose children have other neurodevelopmental conditions, like Autism, has shown that parents with self-compassion have greater well-being, including higher levels of life satisfaction and lower levels of stress (Neff & Faso, 2015). Self-compassion in parents is positively associated with authoritative parenting, a form of positive parenting, while negatively associated with authoritarian and permissive parenting (Gouveia et al., 2016). Due to these positive findings, it is important to investigate the positive relationship self-compassion may have on parents of children with ADHD.

Parenting Psychological Flexibility

To promote positive parenting practices, the theory of contextual behavioral science has advocated teaching people to shift toward considering alternative behaviors to achieve adaptive functioning, such as acceptance and flexibility of choices. This model is best represented by Acceptance and Commitment Therapy (ACT), a behavior therapy that mainly focuses on increasing psychological flexibility (Fledderus et al., 2013). Psychological flexibility refers to the ability to recognize and adapt to situational demands, to remain aware and open to the present moment such that one can recognize and shift behavior strategies as required by situational demands, and to engage in actions that are related to deeply held values (Hayes et al., 2012; Kashdan & Rottenberg, 2010). Research examining individual psychological flexibility within the family context has

shown a positive connection between a parent's psychological flexibility and their child's psychological outcomes, including better school achievement, healthier lifestyles, less psychopathology, and more satisfying relationships (Williams et al., 2012).

Within the parenting role, psychological flexibility refers explicitly to a parent's ability to accept negative thoughts, emotions, and impulses triggered by parenting stress. Research has demonstrated that greater general psychological flexibility is related to greater parental psychological flexibility (Cheron et al., 2009). Although the literature on this topic is limited, research with neurotypical children and their parents has shown that increased parenting psychological flexibility is associated with greater use of positive parenting techniques (Burke & Moore, 2014). For example, when parents are confronted with a difficult parenting situation (e.g., child noncompliance), parents with greater psychological flexibility are more likely to tolerate their negative thoughts (e.g., "my child never listens to me"), emotions (e.g., anger towards the child), and impulses (e.g., desire to yell at their child) (Brasselle et al., 2016). The research on parental psychological flexibility in parents of children with ADHD is lacking. However, research has shown that parenting-specific psychological flexibility may be more related to more adaptive parenting behaviors associated with fewer child problem behaviors in children with ADHD (Vanzin et al., 2020).

Chapter II

Hypotheses

Hypothesis 1: There would be differences in the degree of endorsement of parent cognitions and beliefs endorsed by parents of ADHD children and adolescents and parents of non-ADHD children and adolescents.

Hypothesis 1a: Parents of ADHD children and adolescents would more strongly endorse IBs and less strongly endorse rational beliefs (i.e., get a higher score) on a scale of irrational beliefs compared to parents of non-ADHD children and adolescents.

Hypothesis 1b: Parents of ADHD children and adolescents would endorse less strongly (i.e., lower on a scale) parent psychological flexibility compared to parents of non-ADHD children and adolescents.

Hypothesis 1c: Parents of ADHD children and adolescents would endorse less strongly (i.e., lower on a scale) parent self-compassion compared to parents of non-ADHD children and adolescents.

Hypothesis 2a: Higher scores on an irrational beliefs scale would predict higher scores on a parent feelings inventory of negative emotions for all parents regardless of their child's clinical status.

Hypothesis 2b: Lower scores on parents' psychological flexibility would predict lower scores on a parent's feelings inventory of negative emotions in both the ADHD and non-clinical groups.

Hypothesis 2c: Higher scores on parent self-compassion would predict lower scores on a parent's feelings inventory of negative emotions in both the ADHD and non-clinical groups.

Hypothesis 3a: Higher scores of negative emotions would predict an overreactive discipline style by both the clinical and non-clinical groups.

Hypothesis 3b: Lower scores on the parent's psychological flexibility scale would predict an overreactive discipline style by both the clinical and non-clinical groups.

Hypothesis 4: Parents' use of ineffective parenting strategies, lax and overreactive, would predict higher symptoms of ADHD reported in their children.

Chapter III

Methods

Participants

Four hundred seventy-nine parents of children aged 6-18 were recruited via Facebook. One hundred ninety-four of those participants completed less than 90% of the survey and thus did not provide sufficient data to analyze. Therefore, the sample size for this study consisted of 285 parents of children and adolescents aged 6-18. Participants included parents of children and adolescents with and without ADHD or with another psychiatric disorder. The non-clinical group consisted of parents who have a child that is not diagnosed with ADHD or another psychiatric disorder. Parents were required to be at least 18 years old to participate. Parents were recruited from several parent support groups on a social media platform, Facebook. For the clinical group, parents were recruited from the following support groups: ADHD Parents Support Group, Parents of Children with ODD, ADHD, ADD, Anxiety, and OCD, Support Groups for Parents with ADHD Kids, Support Group for Parents of Kids with ADHD, ODD, and Other Behavioral Issues, ADD/ADHD Moms Support Group, Moms with ADHD/ADD Kids, and ADHD Parent Support (Attention Deficit Hyperactivity Disorder). For the non-clinical group, parents were recruited from: Long Island Moms and Dads Group, Upper West Side Parents, Westchester County Moms, Westport and Fairfield Parents CT, and Suffolk County Moms.

The sample for this study consisted primarily of adults who identified as female (96.1% and White/Caucasian (87.0%) with an average age of 43.08 years (*SD* = 6.75). Most participants were married (85.3%) and identified as the child's biological mother

(86.0%). Most participants held undergraduate or graduate degrees (84.2%) and reported a family income of $90,000 or higher (60.7%). Most of the participants' children identify as male (64.9%), with an average age of 10.68 years (*SD* = 3.75). Two hundred and forty-six parents reported that their child had previously received a diagnosis of ADHD (86.3%), with a combined presentation of the inattentive-hyperactive type being the most common (45.3%), followed by predominately inattentive (19.6%) and hyperactive/impulsive type (15.4%). Table 1 provides additional details about participant characteristics.

Procedure

The study was administered using Qualtrics software. An invitation was created explaining the present study and posted in each support group page or Facebook page listed above. This invitation appears in Appendix I. Interested parents clicked the link in the Facebook post, and a Qualtrics survey opened that provided participants with the ethical and logistical information, including electronic consent before the survey could begin. Participants' responses were anonymous and contained a parent consent form (Appendix A), demographics form (Appendix B), The Parent Rational and Irrational Beliefs Scale (P-RIBS; Appendix C), The Parenting-Specific Psychological Flexibility Scale (PSPF; Appendix D), The Parent Feelings Inventory (PFI; Appendix E), The Parenting Scale (PS; Appendix F), The Parent Self-Compassion Scale (SCS-P; Appendix G), and the Conners-3 ADHD Index (Appendix H).

Measures

Demographics. Parents completed a demographics questionnaire that asked them to report information regarding their child, spouse, and self. The information includes the

parent's age, ethnicity, educational background, socioeconomic status, and relationship to the child. Information on children's gender, age, and ethnicity is also included in the questionnaire as well.

Parental Beliefs. The Parent Rational and Irrational Beliefs Scale (P-RIBS; Gavita, DiGiuseppe, David, & Del Vecchio, 2011) is a 24-item self-report measure to assess parents' rational and irrational beliefs relevant to parenting. It evaluates parents' cognitions and beliefs about child behavior and parent role. The instrument includes twelve statements that reflect rational cognitions and twelve statements that reflect irrational or dysfunctional cognitions. Parents rate each of the items using a 5-point Likert scale (1= "strongly disagree" to 5 = "strongly agree"). A higher score on the irrational beliefs questions indicates higher levels of irrational beliefs. A higher rational beliefs score indicates higher levels of rational beliefs. Sample items include: "When my child engages in challenging behaviors, I think that my child is bad, worthless, or condemnable." (Irrational belief) and "I really do not want my child to engage in challenging behaviors, but I realize and accept that things do not have to always be the way I want them to be" (rational belief). Psychometric properties of this instrument have been found to be strong, with a moderate internal consistency of the total score and the three subscales (ranging from .71 to .83), concurrent validity with several other measures related to rational and irrational cognitions (ranging from .54 to .62), and a solid test-retest reliability of .78 (Gavita et al., 2011).

Parent Psychological Flexibility. The Parenting-Specific Psychological Flexibility (PSPF; Parent, Seehuus, & Fondacaro, 2015) scale is a 7-item self-report questionnaire on a 7-point Likert scale that assesses parents' psychological flexibility by

referencing parenting and one's role as a parent. The PSPF was adapted from the Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2011). Example items include "In my role as a parent, I worry about not being able to control my feelings" and "worries get in the way of my success as a parent." The PSPF is a one-factor model that demonstrates adequate construct validity, as factor loadings are above .75, a strong alpha coefficient ($a = .94$), and good two-week test-retest reliability ($r = .74$, $p < .001$). The PSPF is reverse-coded to reflect parenting-specific psychological flexibility rather than inflexibility. Therefore, in the present study, a higher total PSPF score represents more flexibility, while a lower score represents more inflexibility than a higher score.

Parental Emotion. The Parental Feelings Inventory (PFI; Bradley, Hurwitz, Harvey, Hodgson, & Perugini, 2012) assesses parental emotions within the parenting role. Parents are presented with emotion adjectives and are asked to indicate the degree to which they experienced that emotion during the last week in their role as parents. Thirty-one emotion adjectives are assessed, and respondents utilize a 7-point Likert scale (1= "not at all" to 7= "extremely"). The emotion adjectives are separated into three groups (Happy, Angry, Anxious/Sad). The psychometric properties of this measure have been found to be strong. Internal consistency coefficients for the individual factors were all above .90, suggesting highly internally consistent factors. Concurrent validity with other similar measures of parent and child functioning was solid.

Parenting Behavior. The Parenting Scale (PS; Arnold et al., 1993) is a 30-item self-report questionnaire that measures discipline practices that are considered dysfunctional. Parents are presented with simple hypotheticals and are asked to rate their probabilities of using specific discipline strategies in response to child misbehaviors

using a 7-point Likert scale. The Likert scale ranges between effective and ineffective parenting techniques. Higher scores indicate more dysfunctional discipline. The scale measures three factors of dysfunctional discipline styles: Laxness, Overreactivity, and Verbosity. The Laxness subscale describes ways parents give in, allow rules to go unenforced, or provide positive consequences for misbehavior. The Overreactivity scale measures a parent's harsh or punitive parenting, such as anger, meanness, and irritability. The Verbosity scale consists of items that reflect lengthy verbal responses and a reliance on talking even when talking is ineffective. For this study, only the Laxness and Overreactivity subscales will be utilized. In a psychometric evaluation study conducted by Arnold et al. (1993), the Laxness subscale revealed good internal consistency (Cronbach's $\alpha = .83$) with a strong test-retest reliability after two weeks ($r = .83$). The Overreactivity subscale also had a good internal consistency (Cronbach's $\alpha = .82$) with a strong test-retest reliability after two weeks ($r = .82$). In a more recent study assessing the psychometric properties of this measure, Lorber et al., (2014) found that the Laxness subscale continues to be more reliable than the Overreactivity subscale. The Laxness subscale yielded an overall reliability of .89 for women and .87 for men. The Overreactivity subscale demonstrated high internal consistency (Cronbach's $\alpha = .83$ for women and .81 for men).

Parent Self-Compassion. The Self-Compassion Scale (Neff, 2003) is a valid self-report measure and contains 26 items. Participants answer by using a five-point Likert scale, ranging from almost never (1) to almost always (5). A total self-compassion score and six subscales are derived: self-kindness, self-judgment, common humanity, isolation, mindfulness, over-identification. Five of the items (negative subscale) are

reverse scored. For the current study, The Self-Compassion Scale for Parents was created by adapting item content on the Self-Compassion Scale (SCS) so that all the items reference parenting or one's role as a parent. Example item adaptations include: "when something upsets me, I try to keep my emotions in balance" was adapted to "when something about my child's behavior upsets me, I try to keep my emotions in balance," "I'm disapproving and judgmental about my own flaws and inadequacies" was adapted to "I am disapproving and judgmental about my flaws and inadequacies as a parent."

ADHD Symptoms. The Conners 3rd Edition (Conners-3) assesses attention-deficit/hyperactivity disorder (ADHD) in children and adolescents aged 6-18. The internal consistency of the empirical scales ranged from acceptable to very high levels (Cronbach's alpha ranged from .84 to .97). A validation study found strong inter-item correlations across all the Conners 3 scales and a strong likelihood that the items within each scale are measuring the same construct (Conners, 2008). Included in the full-length Conners-3 is the Conners 3 ADHD Index Scale (Conners 3AI). The Conners 3AI consists of 10 items that can differentiate between youth with ADHD and youth in the general population. Items are based on DSM-5 criteria and scored on a four-point Likert scale. The scale provides T-scores with a cut-off for elevated scores (T = 65-69) and very elevated scores (T ≥ 70). Parent rating forms for the Conners 3AI have shown high internal reliability, with a Cronbach's alpha of .90 (Conners, 2008).

Statistical Analysis

All analyses were conducted using SPSS version 28.0. Descriptive statistics included calculating percentages for categorical variables and means, standard deviations, and ranges for continuous variables. Data were also assessed for acceptable levels of

skew (-1.00 – 1.00) and kurtosis (-2.00 – 2.00) to help determine whether variables were normally distributed. Between-group differences were examined with analysis of variance (ANOVA). Simple linear regression was used to evaluate the strength and direction of relationships between continuous variables.

Chapter IV

Results

Descriptive Statistics

Means, standard deviations, ranges, and measures of skewness and kurtosis appear in Table 2. Inter-correlations between key study variables appear in Table 3. Irrational parenting beliefs on the P-RIBS were significantly and negatively correlated with all measures except laxness scores on the Parenting Scale and ADHD severity on the Conners-3. Positive correlations were observed between rational parenting beliefs on the P-RIBS and most measures, except for laxness and the Conners-3, but were negatively correlated with positive emotions on the Parent Feelings Inventory. Psychological flexibility scores on the PSPF were positively associated with negative emotions on the Parent Feelings Inventory, over-reactivity on the Parenting Scale, and overall parent self-compassion but inversely correlated with positive affect on the PFI and severity of ADHD on the Conners-3.

Because the Self Compassion Scale measure was modified to focus on one's role as a parent, internal consistency (Cronbach's alpha) was also assessed. A high degree of internal consistency was observed for SCS total score (α = .95) as well as for the sub-scales for self-kindness (α = .86), self-judgment (α = .87), common humanity (α = .84), isolation (α = .86), mindfulness (α = .79), and over-identification (α = .80). Additional information about correlations between total and subscale scores on the Self-Compassion Scale, Parent Version, with other variables, appear in Table 4 (cognitive variables and ADHD variables) and in Table 5 (emotion and behavior variables).

Differences Between Clinical and Non-Clinical Groups

ANOVAs were performed to determine whether there were differences in the types of parent cognitions and beliefs, as measured by the P-RIBS, between parents of children with or without ADHD. The presence of ADHD was determined by age-adjusted T-scores with a T-score of >65 on the parent rating on the Conners-3 ADHD scale, whereas T-scores of < 65 were categorized as not being at-risk for ADHD. Results revealed no significant differences in P-RIBS irrational beliefs (p = .782) or rational beliefs (p = .688) (Table 7). Accordingly, support was not found for Hypothesis 1a that parents of ADHD at-risk children would more strongly endorse irrational beliefs than parents of non-at-risk ADHD youth (ADHD M score = 32.55 vs. non-ADHD M score = 32.75) and less strongly endorse rational beliefs (ADHD M = 30.11 vs. non-ADHD M = 30.32).

Conversely, support was observed for Hypothesis 1b that there would be significant between-group differences in parent psychological flexibility (p = .045) according to whether parents had children with at-risk ADHD (T-scores of > 65) or not (T-scores of <65) (Table 6). Additionally, an ANOVA revealed a significant main effect (p = .008) for parents of children with ADHD endorsing significantly lower parent self-compassion (M = 3.02) compared to parents of non-at-risk ADHD children (M = 3.39).

Parental Beliefs, Parent Psychological Flexibility, Parent Self-Compassion, and Parental Emotion

A regression analysis was performed to test whether higher endorsement of irrational parental beliefs was predictive of higher negative emotions as measured by the PFI for all parents, regardless of their child's ADHD status. The results indicated that parents' irrational beliefs were a significant predictor of parents' negative emotions R^2 =

.070, $F(1,283) = 21.27$, $p < .001$, with Beta = 0.26. This value indicates that as the irrational belief score on the P-RIBS increased by one standard deviation, parental negative emotion scores on the PFI increased by 0.26 standard deviations.

A separate regression model was used to test the hypothesis that higher total PSPF scores on parents' psychological flexibility would predict lower scores of parents' negative emotions on the PFI in both the ADHD at-risk group and the non-at-risk ADHD group. Results supported Hypothesis 2b. Among parents with children with at-risk ADHD, the model was significant, $R^2 = .352$, $F(1,201) = 109.03$, $p < .001$, with Beta = -.59. For parents with non-at-risk ADHD children, the association between psychological flexibility and negative emotions was also significant $R^2 = .175$, $F(1,61) = 12.97$, $p < .001$, with Beta = -.41. A third regression model was used to examine Hypothesis 2c whether higher scores of the parents' self-compassion would predict lower scores of parental negative emotions in both the ADHD group and non-ADHD group. Results supported this hypothesis in the at-risk ADHD group, $R^2 = .323$, $F(1,200) = 95.57$, $p < .001$ with Beta = -.57. Results were also statistically significant for the non-at-risk ADHD group, but comparatively weaker, $R^2 = .137$, $F(1,33) = 5.23$, $p = .029$ with Beta = -.37.

Relation Between Parental Emotions, Parental Psychological Flexibility, and Parenting Behavior

It was also hypothesized that higher scores of parental negative emotions would predict an overreactive discipline style by the ADHD and non-ADHD groups. This hypothesis was supported among parents with children with at-risk ADHD, $R^2 = .171$, $F(1,201) = 41.49$, $p < .001$ with Beta = -.41, as well as for parents with children with non-at-risk ADHD, $R^2 = .105$, $F(1,61) = 7.18$, $p = .009$ with Beta = -.32. Hypothesis 3b predicted that scores on the PSPF would predict an overreactive discipline style by both

parent groups. Support was also found for this hypothesis among the at-risk ADHD group, $R^2 = .184$, $F(1,201) = 46.43$, $p < .001$ with Beta = -.43, as well as the non-at-risk ADHD group, $R^2 = .184$, $F(1,61) = 14.96$, $p < .001$ with Beta = -.44.

Relation Between Parenting Behavior and ADHD Symptom Severity

Parents' use of ineffective parenting strategies (i.e., laxness and over-reactive PS subscale scores) was hypothesized to predict higher symptoms of ADHD in their children based on the Conners-3 T-scores. Results did not support this hypothesis as over-reactivity was not predictive of ADHD severity, $R^2 = .000$, $F(1, 264) = 0.06$, $p = .814$ with Beta = -.01. Additionally, laxness was not predictive of Conners-3 T-score, $R^2 = .002$, $F(1, 262) = 1.52$, $p = .219$ with Beta = .08.

Chapter V

Discussion

Prior research suggests that parents' experiences of negative emotions and dysfunctional cognitions have a negative impact on child behavior outcomes across both clinical and non-clinical groups (Jones et al., 2014; Wiener et al., 2015; Bornstein et al., 2017). Further, parents who experience negative emotions and dysfunctional cognitions tend to engage in ineffective discipline styles, such as overreactive and punitive (Mofokeng & Van der Wath, 2017; Hutchison et al., 2016). Prior research suggests that children and adolescents with ADHD are more likely to develop maladaptive coping strategies, including avoidance and procrastination, as well as decreased social skills and increased peer victimization/bullying (Harpin et al., 2013). Positive parenting practices have promising results in reducing negative outcomes for externalizing behaviors commonly associated with ADHD (Anahita et al., 2015). Due to the developmental importance of childhood and early adolescence, parents of children with ADHD must be educated about the effects of negative emotions and cognitions on their parenting behaviors and, ultimately, their child's lifelong outcomes. The present study investigated factors such as emotions and cognitions that may contribute to a parent engaging in ineffective discipline styles when parenting their child or adolescent.

It was hypothesized that there would be differences in the degree of endorsement of parent cognitions and beliefs endorsed by parents of ADHD children and adolescents and parents of the non-clinical group. Specifically, it was hypothesized that parents of ADHD children and adolescents would more strongly endorse irrational beliefs and less strongly endorse rational beliefs than the non-clinical group. Contrary to my prediction,

support was not found for this hypothesis. However, there were significant between-group differences in parent psychological flexibility. This finding was to be expected and confirms that parents of ADHD children reported experiencing less parent psychological flexibility than parents of the non-clinical group. Furthermore, as predicted, parents of ADHD children reported experiencing less parent self-compassion when compared to parents of the non-clinical group.

The second hypothesis examined the relationship between parents' experiences of irrational beliefs and parents' negative emotions. Support was found for this hypothesis. In both the clinical and non-clinical groups, parents' irrational beliefs significantly predicted parents' negative emotions. Parents who endorsed experiencing more irrational beliefs also reported experiencing a greater frequency of negative emotions when parenting their children. Additionally, parents' psychological flexibility was found to be a significant predictor of parents' negative emotions in both the clinical and non-clinical group. However, the relationship was stronger among parents with ADHD children. Thus, parents with greater psychological flexibility reported experiencing less frequent negative emotions. Prior research regarding the role of parents' psychological flexibility when parenting a child with ADHD is limited. However, research on neurotypical children has found that when parents are confronted with a difficult parenting situation (e.g., child noncompliance), parents with greater psychological flexibility are likelier to tolerate their negative thoughts, emotions, and impulses (Brasselle et al., 2016). The findings from the present study may highlight areas of focus for professionals and parents engaging in parent training.

Similarly, support was found for hypothesis 2c. Parent self-compassion was found to be a significant predictor of parents' negative emotions in both the clinical and non-clinical group; however, the support was comparatively weaker for the non-clinical group. Thus, parents with greater self-compassion for themselves in the context of parenting reported experiencing less frequent negative emotions. Prior research has demonstrated that self-compassion in parents is positively associated with positive parenting practices while negatively associated with authoritarian and permissive parenting (Gouveia et al., 2016). The findings from the present study may explain a specific mechanism by which parents' experience of negative emotions could be decreased. The third hypothesis investigated the impact parents' negative emotions, and parents' psychological flexibility would have on discipline style. As predicted, parents who reported experiencing a greater frequency of negative emotions were more likely to utilize an overreactive discipline style, in both the clinical and non-clinical groups. This finding is consistent with prior research that found that parents who experienced a negative emotional state more frequently were more likely to engage in poor parenting practices, such as utilizing an overreactive discipline style (Lorber & O'Leary, 2005). Similarly, parents who reported less parent psychological flexibility were more likely to utilize an overreactive discipline style. This finding is consistent with prior research that has shown that parenting-specific psychological flexibility may be more related to more adaptive parenting behaviors associated with lower levels of child problem behaviors in children with ADHD (Vanzin et al., 2020). The fourth hypothesis sought to explore the relationship between ineffective parenting strategies and more severe endorsement of symptoms of ADHD. Parenting behavior (over-reactive and laxness) was not a significant

predictor of ADHD symptoms experienced by the child or adolescent. This finding is contrary to prior research that has found that parents of children with ADHD are at a greater risk for engaging in problematic discipline behaviors because children with ADHD are generally more non-compliant and more challenging to discipline (Barkley, 2006). It is unclear why the present study did not find a similar finding. One potential reason could be due to the manner in which ADHD symptom severity was assessed. The present study utilized the Conners-3 short form, consisting of only ten items. It is possible that a lengthier rating scale with more questions addressing symptom severity would yield results more consistent with prior research.

Limitations of the Current Study and Future Directions

The findings from the present study add to a growing body of literature about the emotions, cognitions, and discipline styles experienced by parents of children and adolescents with ADHD. This study expanded upon previous research by broadening the age range of children and adolescents across the ages of 6-18 years old. While the results of this study add to the limited literature available, the study should be interpreted in light of several limitations.

The present study's sample is both a strength and a limitation. The statistical power of this research was increased through the use of many study participants (N = 285) that resided in various locations across the United States. However, the sample's cultural, gender, and racial diversity was poor. The sample consisted of mostly White, high-achieving females with high socioeconomic status. Future research should investigate the findings above with a more socioeconomic, cultural, gender, and racially diverse sample.

Furthermore, there was an unequal sample size across the clinical and non-clinical groups. An improvement for future research would be to have an equal number of clinical and non-clinical participants. An additional limitation of the current study is the use of self-report data. While self-report measures have their advantages (cost and time efficiency), self-report measures can be associated with self-report bias and could impact the reliability of the findings.

Another limitation of the current research is concerning the use of the Parenting-Specific Psychological Flexibility Scale. The PSPF was adapted from the Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2011), which has recently received criticism for its reliability, incremental, and discriminant validity (Ong et al., 2020; Tyndall et al., 2019; Vaughan-Johnston et al., 2017). Additionally, new measures have been published that address the validity and reliability issues of the AAQ-II, such as the Psy-Flex. Previous research using the AAQ-II has demonstrated that psychological flexibility moderates the relationship between stressors and well-being. However, it has not accounted for how well psychological flexibility predicts well-being across various samples and settings (Gloster et al., 2021). The Psy-Flex utilizes situational and temporal specifiers to increase its context-sensitivity, which previous research has shown a lack of such specifiers to increase bias and inaccuracies and lead to a lack of treatment sensitivity and lower validity (Ong et al., 2019). Future research should replicate the current study using an alternate measure of psychological flexibility with greater reliability and validity.

Lastly, a potential limitation of the present study that should be further explored by future research is the Self-Compassion Scale. The Self-Compassion Scale consists of

three main components, each of which has a positive and negative pole. Further examination of each item on this scale leaves the current researchers wondering how some of the items included relate to the idea of "the self." For example, the third component on the Self-Compassion Scale is mindfulness, which involves being aware of the present moment, including both the positive and negative thoughts and emotions of oneself (Germer & Neff, 2013). While mindfulness certainly plays a role in calming people, there does not appear to be any mindful items that emphasize the role of the self. Specifically, one item, "when I'm feeling down, I try to approach my feelings with curiosity and openness," does not provide us with information about that person's sense of self. The current researchers found this to be the case for several of the items utilized in the Self-Compassion Scale.

In conclusion, the present study investigated several factors believed to contribute to the use of negative parenting practices within a group of parents who had children or adolescents diagnosed with ADHD. Between-group differences were found regarding parent specific psychological flexibility, self-compassion in the context of parenting, and parent irrational beliefs as a predictor of the experience of negative emotions. Parent experiences of negative emotions and psychological flexibility were predicted overreactive discipline style. There were several results that were significant for both the clinical and non-clinical groups. However, some results were meaningfully stronger amongst the ADHD group. Specifically, parents of ADHD children who reported greater psychological flexibility reported experiencing less frequent negative emotions more significantly than parents of the non-clinical group. Together these findings suggest that

psychological flexibility may be a significant factor that should be addressed in parent training interventions.

Chapter VI

Implications for the Profession of School Psychology

The current study results have meaningful and direct implications for school psychologists and other professionals who work with parents of children and adolescents with ADHD. ADHD is characterized by persistent inattention, hyperactivity, and impulsivity (APA, 2013), and is a neurodevelopmental disorder thought to affect around 5% of children (Russell et al., 2014). Those with ADHD tend to differ from typically developing children, socially and cognitively, which can have a negative impact on a range of life outcomes such as educational attainment and employment (Kuriyan et al., 2013). Psychoeducation and advice on behavioral management has been recommended by clinical practice guidelines as the first line of treatment for children with ADHD (Akwa, 2019; National Collaborating Centre for Mental Health [NICE], 2018). The results from this study highlighted that the presence of ADHD symptoms is not due to parenting practices, although parents who experienced greater psychological flexibility and greater self-compassion in the context of parenting experienced fewer negative emotions, which led them to engage in more positive parenting practices, such as not using an overreactive discipline strategy. The findings from this study emphasize the importance of providing parents with strategies to reframe irrational beliefs, challenge automatic negative thoughts, and increase a parent's ability to accept negative thoughts, emotions, and impulses triggered by parenting stress, which may lead to the experience of less negative emotions, and ultimately result in greater use of positive parenting techniques.

Table 1

Participant Characteristics

	N	%
Gender		
Male	11	3.9%
Female	274	96.1%
Age in years		
Mean (SD)	43.08 (6.75)	
Race		
American Indian/Alaskan Native	2	0.7%
East Asian	4	1.4%
South Asian	1	0.4%
Black/African American	2	0.7%
Hispanic	10	3.5%
Native Hawaiian/Pacific Islander	1	0.4%
White/Caucasian	248	87.0%
Mixed	8	2.8%
Other	5	1.8%
Do not wish to disclose	4	1.4%
Education		
Some Highschool	2	0.7%
Highschool graduate	9	3.2%
Some College	21	7.4%
Technical training	11	3.9%
College graduate	90	31.6%
Some post-graduate	27	9.5%
Masters	90	31.6%
Doctoral	33	11.6%
Missing	2	0.7%
Marital Status		
Single	9	3.2%
Married	243	85.3%
Cohabiting	11	3.9%
Divorced/Separated	21	7.4%
Widowed	1	0.4%
Income		
<$30,000	21	7.4%
$40,000-$50,000	20	7.0%

$50,000-$60,000	15	5.3%
$60,000$-70,000	16	5.6%
$70,000-$80,000	15	5.3%
$80,000-$90,000	16	5.6%
>$90,000	173	60.7%
Missing	9	3.2%
Mental Health Treatment		
Individual Psychotherapy	161	56.5%
Family Psychotherapy	40	14.0%
Parent Training	50	17.5%
Psychotropic Medication	61	21.4%
Other	18	6.3%
Never received mental health care	84	29.5%
Relationship to Child		
Biological Mother	245	86.0%
Biological Father	11	3.9%
Adoptive Mother	22	7.7%
Adoptive Father	0	0.0%
Custodial Grandparent	2	0.7%
Other	5	1.8%
Child's Gender		
Male	185	64.9%
Female	92	32.3%
Transgender Male	2	0.7%
Transgender Female	1	0.4%
Gender variant/Non-conforming	5	1.8%
Child's Age in years		
Mean (SD)	10.68 (3.75)	
Child's Race		
American Indian/Alaskan Native	5	1.8%
East Asian	4	1.4%
South Asian	1	0.4%
Black/African American	6	2.1%
Hispanic	17	6.0%
Native Hawaiian/Pacific Islander	3	1.1%
White/Caucasian	233	81.8%
Mixed	22	7.7%
Other	6	2.1%
Child Mental Health Treatment		
Individual Psychotherapy	169	59.3%
Family Psychotherapy	31	10.9%

Parent Training	15	5.3%
Psychotropic Medication	92	32.3%
Other	24	8.4%
Never received mental health care	71	24.9%

Table 2

Descriptive statistics for study variables

				Skewness		Kurtosis	
Variables	N	Mean (SD)	Range	Statistic	SE	Statistic	SE
P-RIBS: Irrational	285	32.60 (5.05)	21.00- 51.00	0.26	0.14	0.31	0.29
P-RIBS: Rational	285	30.21 (3.60)	14.00- 39.00	-0.39	0.14	1.42	0.29
PSPF	285	33.84 (7.64)	7.00- 49.00	-0.46	0.14	0.342	0.29
PFI: Negative	285	3.74 (1.09)	1.00- 7.00	0.49	0.14	0.01	0.29
PFI: Positive	285	4.61 (1.13)	1.09- 7.00	-0.10	0.14	-0.31	0.29
PS: Over-Reactivity	285	4.41 (1.07)	0.80- 7.00	-0.32	0.14	0.22	0.29
PS: Laxness	283	3.70 (0.50)	1.80- 5.00	-0.44	0.14	0.65	0.29
Parent SCS (total)	251	3.10 (0.78)	1.20- 5.00	0.03	0.15	-0.38	0.31
Self-Kindness	250	2.98 (0.86)	1.20- 5.00	0.08	0.15	-0.45	0.31
Self-Judgment	251	2.95 (0.97)	1.00- 5.00	0.05	0.15	-0.67	0.31
Common Humanity	250	3.34 (0.93)	1.00- 5.00	-0.15	0.15	-0.69	0.31
Isolation	250	2.89 (1.07)	1.00- 5.00	0.13	0.15	-0.79	0.31
Mindfulness	250	3.39 (0.76)	1.75- 5.00	0.03	0.15	-0.73	0.31
Over-Identification	251	3.21 (0.96)	1.00- 5.00	-0.08	0.15	-0.60	0.31
Conners-3 ADHD Index	266	79.17 (17.46)	45.00- 90.00	-1.22	0.15	-0.29	0.30

P-RIBS (Parent Rational and Irrational Beliefs Scale); PSPF (Parenting-Specific Psychological Flexibility Scale); PFI (Parent Feelings Inventory); PS (Parenting Scale); Parent Self-Compassion (Parent SCS).

P-RIBS sub-scales were summed, Conners-3 scores were converted to t-scores, and all other scales and sub-scales were averaged.

Table 3

Inter-correlations for study variables

		1	2	3	4	5	6	7	8	9
1)	P-RIBS: Irrational	--								
2)	P-RIBS: Rational	-.50***	--							
3)	PSPF	-.36***	.39***	--						
4)	PFI: Positive	-.28***	.37***	.53***	--					
5)	PFI: Negative	.26***	-.31***	-.57***	-.29***	--				
6)	PS: Over-Reactivity	-.28***	.34***	.45***	.37***	-.40***	--			
7)	PS: Laxness	-.04	-.03	-.05	.00	.05	.09	--		
8)	Parent SCS (total)	-.42***	.50***	.74***	.56***	-.55***	.52***	.01	--	
9)	Conners-3 ADHD	.02	-.03	.17**	-.14*	.17**	-.01	.08	-.19**	--

* $p < .05$, * $p < .01$, * $p < .001$

P-RIBS (Parent Rational and Irrational Beliefs Scale); PSPF (Parenting-Specific Psychological Flexibility Scale); PFI (Parent Feelings Inventory); PS (Parenting Scale); Parent Self-Compassion (Parent SCS).

Table 4

Inter-correlations for between parent self-compassion scores (total and sub-scales) and cognitive and ADHD variables

		1	2	3	4	5	6	7	8	9	10	11
1)	Parent SCS (total)	--										
2)	Self-Kindness	.87***	--									
3)	Self-Judgment	.89***	.72***	--								
4)	Common Humanity	.74***	.62***	.52***	--							
5)	Isolation	.86***	.63***	.76***	.57***	--						
6)	Mindfulness	.80***	.79***	.60***	.68***	.55***	--					
7)	Over-Identification	.87***	.67***	.80***	.52***	.75***	.61***	--				
8)	P-RIBS: Irrational	-.42***	-.33***	-.38***	-.35***	-.37***	-.23***	-.43***	--			
9)	P-RIBS: Rational	.50***	.43***	.39***	.46***	.38***	.45***	.45***	-.50***	--		
10)	PSPF	-.74***	-.60***	-.66***	-.50***	-.66***	-.60***	-.71***	.36***	-.38***	--	
11)	Conners-3 ADHD	-.19**	-.20**	-.16*	-.13	-.18**	-.16*	-.16*	.02	-.03	.17*	

* $p < .05$, * $p < .01$, * $p < .001$

Parent Self-Compassion (Parent SCS); P-RIBS (Parent Rational and Irrational Beliefs Scale); PSPF (Parenting-Specific Psychological Flexibility Scale)

Table 5

Inter-correlations for between parent self-compassion (total and sub-scales), emotions, and behaviors variables

	1	2	3	4	5	6	7	8	9	10	11
1) Parent SCS (total)	--										
2) Self-Kindness	.87****	--									
3) Self-Judgment	.89****	.71***	--								
4) Common Humanity	.74****	.62***	.52***	--							
5) Isolation	.86****	.64***	.76***	.57***	--						
6) Mindfulness	.80***	.79***	.59***	.68***	.55***	--					
7) Over-Identification	.87***	.67***	.79***	.51***	.75***	.61***	--				
8) PFI: Positive	.56***	.47***	.41***	.49***	.48***	.56***	.49***	--			
9) PFI: Negative	-.55***	-.43***	-.50***	-.32***	-.53***	-.38***	-.59***	-.29***	--		
10) PS: Over-Reactivity	.52***	.48***	.40***	.34***	.38***	.52***	.54***	.37***	-.40***	--	
11) PS: Laxness	.01	.04	.01	.01	-.02	-.00	.04	.00	.05	.09	--

* $p < .05$, * $p < .01$, * $p < .001$

Parent Self-Compassion (Parent SCS); PFI (Parent Feelings Inventory); PS (Parenting Scale);

Table 6

Between-group analyses based on T-scores on Conners-3 ADHD Index

Dependent Variable	At-Risk ADHD (N=203) *M* (*SD*)	Not At-Risk ADHD (N=63) *M* (*SD*)	Statistic(df)	*p*
P-RIBS: Irrational	32.55 (4.89)	32.75 (5.32)	$F(1,264) = 0.08$	.782
P-RIBS: Rational	30.11 (3.75)	30.32 (3.12)	$F(1, 264) = 0.16$	.688
PSPF	22.91 (7.59)	20.71 (7.34)	$F(1, 264) = 4.07$	*.045*
PFI: Positive	4.49 (1.14)	4.83 (0.97)	$F(1, 264) = 4.59$	*.033*
PFI: Negative	3.86 (1.08)	3.42 (0.98)	$F(1, 264) = 8.12$	*.005*
PS: Over-Reactivity	4.37 (1.09)	4.41 (1.06)	$F(1, 264) = 0.05$	.823
PS: Laxness	3.73 (0.49)	3.65 (0.47)	$F(1, 264) = 1.42$	.247
Parent SCS (total)	3.02 (0.76)	3.39 (0.76)	$F(1,283) = 7.13$	*.008*
Self-Kindness	2.87 (0.83)	3.34 (0.84)	$F(1,234) = 9.32$	*.003*
Self-Judgment	2.86 (0.95)	3.23 (0.95)	$F(1, 234) = 4.55$	*.034*
Common Humanity	3.29 (0.93)	3.51 (0.84)	$F(1, 234) = 1.65$	.200
Isolation	2.79 (1.04)	3.26 (1.00)	$F(1, 234) = 6.05$	*.015*
Mindfulness	3.32 (0.75)	3.51 (0.87)	$F(1, 234) = 4.51$	*.035*
Over-Identification	3.13 (0.96)	3.51 (0.87)	$F(1, 234) = 4.97$	*.027*

P-RIBS (Parent Rational and Irrational Beliefs Scale); PSPF (Parenting-Specific Psychological Flexibility Scale); PFI (Parent Feelings Inventory); PS (Parenting Scale); Parent Self-Compassion (Parent SCS).

Appendix A. Parent Consent Form

Department of Psychology

Parent Consent Form

Project Title: Emotions, Cognitions, and Discipline Style in Parents of Children and Adolescents with Attention Deficit Hyperactivity Disorder (ADHD)

Principal Investigator: Brooke Alpert, M.S.

Purpose: The purpose of this project is to gain a better understanding of how parents' thoughts and emotions about their parenting role influences disciplinary style among parents of children adolescents with ADHD. The information gained from this study will inform the field and help us develop better interventions to address the needs of parents.

Procedures: This study consists of an online survey. You will be asked to complete a demographics questionnaire and 6 brief questionnaires concerning your thoughts and feelings about your parenting role, and how you respond to your child's behavior. The estimated participation time is between 25 – 35 minutes.

Risks and Benefits: There are no physical risks associated with your participation in this research beyond those of everyday life. Participation is voluntary, and you may withdraw from participation at any time. You have the right not to answer questions you are not comfortable answering. Although there are no direct benefits to you for your participation in this study, the information obtained from this study will further the knowledge and understanding of thoughts and emotions in parents. At the conclusion of your participation, you will have the option to enter your name in a raffle to receive a $50 Amazon gift card. Please note that an email address will need to be provided for this incentive. It will not be tied to your responses in any way.

Confidentiality: It is important for you to know that confidentiality is of the utmost importance. The information that will be collected will not be used to identify any individuals for any purpose and will be accessed only by the researcher and supervisor mentioned above for research purposes. If any articles result from this study, you will not be identified. Any data from this study will be reported in aggregate form only; individual data responses will not be reported. Data from this study will be kept in a password-protected file.

Contact Information: If you have any further questions about the study, please do not hesitate to contact me at brooke.alpert18@my.stjohns.edu or (845) 260-1385, or my supervising mentor, Dr. Raymond DiGiuseppe, digiuser@stjohned.edu at (718) 990-1955. For questions regarding your rights as a research participant, please contact Marie Nitopi from the Institutional Review Board at (718) 990-1440.

Thank you very much for your time and consideration.

Statement of Consent: I have read and understand the purpose and procedures of the study and the risk/benefits and voluntary nature of participation. By signing this form with my typed name, I provide consent to participate in the present study. Please select below whether you agree or do not agree to participate.

- I **agree** to participate in this study
- I **do not agree** to participate in this study

Appendix B. Demographics Form

Please answer the following questions about you and your family

About yourself:

1. Please identify your gender.

- Male
- Female
- Transgender male
- Transgender female
- Gender variant/non-conforming
- Other
- Do not wish to disclose

2. What is your age? _____

3. How would you classify yourself?

- American Indian or Alaska Native
- East Asian
- South Asian
- Black or African American
- Hispanic
- Native Hawaiian/Pacific Islander
- Caucasian / White
- Mixed Race
- Other: _____

4. What is the highest level of education that you have completed?

- Some high school
- High school graduate
- Some college
- Technical training
- College graduate
- Some post-graduate work
- Masters Degree
- Doctoral or professional degree

5. What is your current marital status?

- Single
- Married

- Living with a partner but not married
- Divorced/Separated
- Widowed
- Would rather not say

6. What is your total annual income?

- $30,000 or less
- $40,000-$50,000
- $50,000-$60,000
- $60,000-$70,000
- $70,000-$80,000
- $80,000-$90,0000
- $90,000 or above

7. Are you currently, or have you ever been involved in any psychological or mental health treatment(s) concerning yourself ? (Please select all that apply):

- Individual psychotherapy
- Family psychotherapy
- Couples' psychotherapy
- Parent Training
- Psychotropic medication
- Other
- I have not received any mental health treatment

8. Are you currently, or have you ever taken your child for any psychological or mental health treatment(s) concerning yourself or your child? (Please select all that apply):

- Individual psychotherapy
- Family psychotherapy
- Parent Training
- Psychotropic medication. l
- Other
- My child has not received any mental health treatment

About your child:

1. What is your relationship to this child?

- Biological Mother
- Biological Father
- Adopted Mother
- Adopted Father

- Custodial grandparent
- Other: _____

2. Please identify your child's gender.

- Male
- Female
- Transgender male
- Transgender female
- Gender variant/non-conforming
- Other
- Do not wish to disclose

3. Please indicate what race(s) you consider your child to be?

- American Indian or Alaska Native
- East Asian
- South Asian
- Black or African American
- Hispanic
- Native Hawaiian/Pacific Islander
- Caucasian / White
- Mixed race
- Other: _____

4. What is your child's age?

5. Has your child ever received the diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) from a medical or mental health professional?

- Yes
- No

6. If so, what is the diagnosed type?

- Combined Type
- Inattentive Type
- Hyperactivity/Impulsivity Type
- I don't know

7. Has your child been diagnosed with any other diagnoses for psychological, genetic, or medical conditions? (Please select all that apply):

- Autism Spectrum Disorder (or Autistic Disorder, Asperger's Syndrome,
    - Pervasive Developmental Disorder – Not Otherwise Specified [PDD-NOS])
- Anxiety Disorder
- Bipolar Disorder
- Depression or Mood Disorder

- Disruptive Behavior Disorder (Oppositional Defiant, Intermittent Explosive, or Conduct Disorder, Disruptive Mood Dysregulation Disorder)
- Down Syndrome
- Fragile X Syndrome
- Obsessive Compulsive Disorder (OCD)
- Specific Learning Disability
- Intellectual Deficiency
- No diagnosis
- Other: _____

Appendix C. The Parent Rational and Irrational Beliefs Scale (P-RIBS)

Instructions: Please think about a situation during the past week when your child(ren) engaged in challenging behaviors (e.g., tantrum, aggression, self-injury, etc.). Try to recall the thoughts that you have had in such situations. When faced with adverse situations, some parents tend to think that situations absolutely must be the way they want (in terms of absolute must). In the same situation, other people think in preferential terms and accept the situation, even if they want very much that those situations do not happen and even, they might try to change it. Considering these possibilities, please estimate how much the statements below represent the thoughts that you have in such situations when your child engages in challenging behavior.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.My child absolutely must behave appropriately	1	2	3	4	5
2.If my child engages in challenging behavior, it doesn't mean that I am a worthless person	1	2	3	4	5
3.I think it is awful when my child engages in challenging behavior	1	2	3	4	5
4.If my child engages in challenging behavior, it means that I am worthless	1	2	3	4	5
5.It is unbearable when my child engages in challenging behavior	1	2	3	4	5
6.I am always optimistic about my future	1	2	3	4	5
7.I can stand it when my child engages in challenging behavior, although it is difficult for me to tolerate it	1	2	3	4	5
8. It is important for me to keep busy.	1	2	3	4	5
9. I really do not want my child to engage in challenging behaviors, but I realize and accept that things do not have to always be the way I want them to be.	1	2	3	4	5
10. It is unpleasant and unfortunate when my child engages in challenging behavior, but it is not terrible	1	2	3	4	5
11. When my child engages in challenging behaviors, I think that my children are bad, worthless, or condemnable.	1	2	3	4	5

12. When my child engages in challenging behaviors, I accept them as being worthwhile despite her/his poor behavior.	1	2	3	4	5
13. I absolutely must be a good parent.	1	2	3	4	5
14. If I am not a good parent, it doesn't mean that I am a worthless person.	1	2	3	4	5
15. I think it is awful to be a bad parent.	1	2	3	4	5
16. If I am not a good parent, it means that I am worthless.	1	2	3	4	5
17. It is unbearable to think of myself as a bad parent.	1	2	3	4	5
18. I am always optimistic about my future.	1	2	3	4	5
19. I can stand to be a bad parent	1	2	3	4	5
20. It is important for me to keep busy.	1	2	3	4	5
21. I really want to be a good parent, but I realize and accept that I may not always be as good at parenting as I want to be.	1	2	3	4	5
22. It is unpleasant and unfortunate to be a bad parent, but it is not terrible.	1	2	3	4	5
23. If I am not a good parent, I think that my children are bad, worthless, or condemnable	1	2	3	4	5
24. When I am not a good parent, I can accept my children as being worthwhile and not condemnable.	1	2	3	4	5

Appendix D. The Parenting-Specific Psychological Flexibility Scale (PSPF)

Instructions: Please think of your role as a parent for the following questions and rate how true each statement is for you by selecting a number next to it.

Use the scale below to make your choice

1	2	3	4	5	6	7
Never true	Very Seldom True	Seldom True	Sometimes True	Frequently True	Almost Always True	Always True

1. My painful experiences and memories make it difficult for me to parent the way I would value.	1	2	3	4	5	6	7
2. In my role as a parent, I'm afraid of my feelings	1	2	3	4	5	6	7
3. In my role as a parent, I worry about not being able to control my worries and feelings	1	2	3	4	5	6	7
4. My painful memories prevent me from having a fulfilling life as a parent.	1	2	3	4	5	6	7
5. Emotions cause problems in my parenting.	1	2	3	4	5	6	7
6. It seems like most parents are handling their role as a parent better than I am.	1	2	3	4	5	6	7
7. Worries get in the way of my success as a parent.	1	2	3	4	5	6	7

Appendix E. Parent Feelings Inventory

Instructions: Parenting can be filled with many different moods and feelings, both positive and negative. Please indicate below the degree to which you have experienced each mood or feeling during the last month in your role as a parent/guardian.

During the last month did you feel the following in your role as a parent/guardian?

	Not at all						Extremely
1. Angry	1	2	3	4	5	6	7
2. Afraid	1	2	3	4	5	6	7
3. Annoyed	1	2	3	4	5	6	7
4. Calm	1	2	3	4	5	6	7
5. Cheerful	1	2	3	4	5	6	7
6. Contented	1	2	3	4	5	6	7
7. Discouraged	1	2	3	4	5	6	7
8. Energetic	1	2	3	4	5	6	7
9. Excited	1	2	3	4	5	6	7
10. Frightened	1	2	3	4	5	6	7
11. Frustrated	1	2	3	4	5	6	7
12. Grouchy	1	2	3	4	5	6	7
13. Guilty	1	2	3	4	5	6	7
14. Happy	1	2	3	4	5	6	7
15. Hopeless	1	2	3	4	5	6	7
16. Impatient	1	2	3	4	5	6	7
17. Irritated	1	2	3	4	5	6	7
18. Loving	1	2	3	4	5	6	7
19. Miserable	1	2	3	4	5	6	7
20. Nervous	1	2	3	4	5	6	7
21. Patient	1	2	3	4	5	6	7

22. Peaceful	1	2	3	4	5	6	7
23. Pleased	1	2	3	4	5	6	7
24. Relaxed	1	2	3	4	5	6	7
25. Sad	1	2	3	4	5	6	7
26. Satisfied	1	2	3	4	5	6	7
27. Scared	1	2	3	4	5	6	7
28. Tense	1	2	3	4	5	6	7
29. Unhappy	1	2	3	4	5	6	7
30. Worn out	1	2	3	4	5	6	7
31. Worried	1	2	3	4	5	6	7

Appendix F. Parenting Scale

Instructions: At one time or another, all children misbehave or do things that could be harmful, that are "wrong," or that parents don't like. Examples include:

hitting someone	whining	not picking up toys
throwing food	lying	refusing to go to bed
having a tantrum	arguing back	wanting a cookie before dinner

Parents have many ways or styles of dealing with these types of problems. Below are items that describe some styles of parenting.

For each item, fill in the circle that best describes your style of parenting during the past two months with the child indicated above.

SAMPLE ITEM:

At mealtime…

I let my child decide how much to eat — 0---0---●---0---0---0---0 — I decide how much my child eats.

1. When my child misbehaves…

I do something right away. 0---0---0---0---0---0---0 I do something about it later.

2. Before I do something about a problem…

I give my child several reminders or warnings. 0---0---0---0---0---0---0 I use only one reminder or warning.

3. When I'm upset or under stress…

I am picky and on my child's back. 0---0---0---0---0---0---0 I am no more picky than usual.

4. When I tell my child not to do something…

I say very little. 0---0---0---0---0---0---0 I say a lot.

5. When my child pesters me…

I can ignore the pestering. 0---0---0---0---0---0---0 I can't ignore pestering.

6. When my child misbehaves…

I usually get into a long 0---0---0---0---0---0---0 I don't get into an argument.

argument with my child.

7. I threaten to do things that…

I am sure I can carry out. 0---0---0---0---0---0---0 I know I won't actually do.

8. I am the kind of parent that…

set limits on what my child 0---0---0---0---0---0---0 lets my child do whatever he/she

is allowed to do. wants.

9. When my child misbehaves…

I give my child a long lecture. 0---0---0---0---0---0---0 I keep my talks short and to the point.

10. When my child misbehaves…

I raise my voice or yell. 0---0---0---0---0---0---0 I speak to my child calmly.

11. If saying "No" doesn't work right away…

I take some other kind 0---0---0---0---0---0---0 I keep talking and try to get through

of action. to my child.

12. When I want my child to stop doing something…

I firmly tell my child to stop. 0---0---0---0---0---0---0 I coax or beg my child to stop.

13. When my child is out of my sight…

I often don't know what 0---0---0---0---0---0---0 I always have a good idea of what

my child is doing. my child is doing.

14. After there's been a problem with my child…

I often hold a grudge. 0---0---0---0---0---0---0 things get back to normal quickly.

15. When we're not at home…

I handle my child the 0---0---0---0---0---0---0 I let my child get away with a lot

way I do at home. a lot more.

16. When my child does something I don't like…

I do something about it. 0---0---0---0---0---0---0 I often let it go.

every time it happens.

17. When there is a problem with my child…

things build up and I do 0---0---0---0---0---0---0 things don't get out of hand.

things I don't mean to do.

18. When my child misbehaves, I spank, slap, grab, or hit my child…

never or rarely. 0---0---0---0---0---0---0 most of the time.

19. When my child doesn't do what I ask…

I often let it go or end 0---0---0---0---0---0---0 I take some other action.

up doing it myself.

20. When I give a fair threat or warning…

I often don't carry it out. 0---0---0---0---0---0---0 I always do what I said.

21. If saying "No" doesn't work…

I take some other kind 0---0---0---0---0---0---0 I offer my child something nice so

of action. he/she will behave.

22. When my child misbehaves…

I handle it without 0---0---0---0---0---0---0 I get so frustrated or angry that my

getting upset. child can see I'm upset.

23. When my child misbehaves…

I make my child tell me 0---0---0---0---0---0---0 I say "No" or take some other action.

why he/she did it.

24. If my child misbehaves and then acts sorry…

I handle the problem 0---0---0---0---0---0---0 I let it go that time.

like I usually would.

25. When my child misbehaves…

I rarely use bad 0---0---0---0---0---0---0 I almost always use bad language.

language or curse.

26. When I say my child can't do something…

I let my child do it anyway. 0---0---0---0---0---0---0 I stick to what I said.

27. When I have to handle a problem…

I tell my child 0---0---0---0---0---0---0 I don't say I'm sorry.

I'm sorry about it.

28. When my child does something I don't like, I insult my child, say mean things, or call my child names…

never or rarely. 0---0---0---0---0---0---0 most of the time.

29. If my child talks back or complains when I handle a problem…

I ignore the complaining 0---0---0---0---0---0---0 I give my child a talk about not

and stick to what I said. complaining.

30. If my child gets upset when I say "No" …

I back down and 0---0---0---0---0---0---0 I stick to what I said.

give in to my child.

Appendix G. Parent Self-Compassion Scale (SCS)

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost never				Almost always
1	2	3	4	5

_____ 1. I'm disapproving and judgmental about my flaws and inadequacies as a parent.
_____ 2. When I'm feeling down about my parenting skills, I tend to obsess and fixate on everything that is wrong.
_____ 3. When things are going badly for me as a parent, I see the difficulties as part of life that everyone goes through.
_____ 4. When I think about my inadequacies as a parent, it makes me feel more separate and cut off from the rest of the world.
_____ 5. I try to be loving towards myself when I am feeling emotional pain as a parent.
_____ 6. When I fail at some important tasks to parenting my child, I become consumed by feelings of inadequacy.
_____ 7. When I am down and out about my skills as a parent, I remind myself that there are many other parents in the world feeling like I am.
_____ 8. When I am having a difficult time parenting my child, I tend to be tough on myself.
_____ 9. When something about my child's behavior upsets me, I try to keep my emotions in balance.
_____ 10. When I feel inadequate as a parent, I try to remind myself that feelings of inadequacy are shared by most parents.
_____ 11. I am intolerant and impatient towards those aspects of my parenting I do not like.
_____ 12. When I am going through a very hard time parenting my child, I give myself the caring and tenderness I need.
_____ 13. When I am feeling down about my parenting, I tend to feel like most other parents are probably happier than I am.
_____ 14. When something painful happens, I try to take a balanced view of the situation.
_____ 15. I try to see my failings as a parent as part of the human condition.
_____ 16. When I see aspects of my parenting that I do not like, I get down on myself.
_____ 17. When I fail at something important to parenting my child, I try to keep things in perspective.
_____ 18. When I am really struggling as a parent, I tend to feel like other parents must be having an easier time of it.
_____ 19. I'm kind to myself when I am experiencing suffering.
_____ 20. When something about my child's behavior upsets me, I get carried away with my feelings.

_____ 21. I can be a bit cold-hearted towards myself when I am experiencing suffering.
_____ 22. When I am feeling down about my parenting, I try to approach my feelings with curiosity and openness.
_____ 23. I am tolerant of my flaws and inadequacies as a parent.
_____ 24. When my child's behavior evokes feelings of pain, I tend to blow the incident out of proportion.
_____ 25. When I fail at something that is important to parenting my child, I tend to feel alone in my failure.
_____ 26. I try to be understanding and patient towards those aspects of my parenting I do not like.

Appendix H. Conners-3 ADHD Index

Instructions: Here are some things parents might say about their children. Please tell us about your child and what he/she has been like in the ***past month***. Read each item carefully, then mark how well it describes your child or how frequently it has happened in the past month.

0= In the past month, this was ***not true at all*** about my child. It never (or seldom) happened.

1= In the past month, this was ***just a little true*** about my child. It happened occasionally.

2= In the past month, this was ***pretty much true*** about my child. It happened very often (very frequently).

3=In the past month, this was ***very much true*** about my child. It happened very often (very frequently).

1. Fidgets or squirms in seat.	0	1	2	3
2. Restless or overactive.	0	1	2	3
3. Excitable, impulsive.	0	1	2	3
4. Is easily distracted by sights or sounds.	0	1	2	3
5. Is sidetracked easily.	0	1	2	3
6. Fails to complete schoolwork or tasks (Even when he/she understands and is trying to cooperate).	0	1	2	3
7. Avoids or dislikes things that take a lot of effort and are not fun.	0	1	2	3
8. Does not seem to listen to what is being said to him/her.	0	1	2	3
9. Has trouble concentrating.	0	1	2	3
10. Inattentive, easily distracted.	0	1	2	3

Appendix I. Invitation to Participate in Study

Hi everyone!

If you have a child or adolescent aged 6-18, we would greatly appreciate it if you could take 20 minutes out of your day to complete a research survey.

We are researching the emotions, thoughts, and discipline styles of parents. Your participation is completely voluntary, and no identifying information will be used. The results from this study will further the knowledge and understanding of parents' thoughts and emotions and will guide future interventions.

Thank you so much in advance for your contribution to this research.

Please click the link here to participate:
https://stjohnssoe.qualtrics.com/jfe/form/SV_1HW2MFGHYsw8oRw

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