2024

EXAMINING THE RELATIONSHIP BETWEEN ANGER AT THE SELF AND ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD) SYMPTOMS

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EXAMINING THE RELATIONSHIP BETWEEN ANGER AT THE SELF AND ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD) SYMPTOMS

A dissertation submitted in partial fulfillment
of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

to the faculty of the

DEPARTMENT OF PSYCHOLOGY

of

ST. JOHN'S COLLEGE OF LIBERAL ARTS AND SCIENCES

at

ST. JOHN'S UNIVERSITY
New York
by
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Date Submitted 3/15/2024 Date Approved 3/17/2024

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ABSTRACT

EXAMINING THE RELATIONSHIP BETWEEN ANGER AT THE SELF AND ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD) SYMPTOMS

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The emotion concept of "self-anger" is ill-defined and under-researched. While self-anger bears similarities to traditional anger ("other-anger"), it also retains features of shame and guilt. In addition, self-anger shares ruminative qualities and self-condemning thoughts with depression. As a result, self-anger can become maladaptive at persistent and unhealthy levels. Furthermore, individuals with attention-deficit/hyperactivity disorder (ADHD) may be at an increased risk for dysfunctional self-anger, considering their proneness to increased anger and depressive tendencies compared to non-ADHD counterparts. However, the relationship between ADHD and self-anger has not yet been explored in the literature. The purpose of this study was to examine the experiential aspects of self-anger and the relationship between ADHD symptom severity and self-anger.

Four hundred twenty-four adults (aged 18 and up), 216 of whom reported having a diagnosis of ADHD or attention-deficit disorder (ADD), completed the Assessment of Self-Anger Episode to answer questions about the features of a recent and intense incident of self-anger. The results revealed that self-anger was more likely to be related to a work or school-related issue and to occur in a private setting, unlike other-anger. In addition, self-anger was associated with physiological symptoms characteristic of other-

anger and cognitions characteristic of depression. Behaviors one felt like doing and physiological symptoms each accounted for the most unique variance in predicting self-anger intensity. Participants also completed measures of trait self-anger, ADHD symptom severity, depression, anger rumination, and self-condemnation. Correlations and linear regressions showed that adults experienced more self-anger, anger rumination, and depression as ADHD symptom severity increased. Furthermore, self-condemnation and anger rumination were found to partially mediate the relationship between ADHD symptom severity and self-anger. The findings confirmed that self-anger is a unique and sometimes maladaptive emotional experience that warrants attention in research and clinical domains.

ACKNOWLEDGEMENTS

Thank you to my dissertation mentor and committee for imparting their knowledge, expertise, and passion for this topic. Much love and thanks to my family and friends who provided the joy and laughter that one needs during an endeavor like this one. Finally, Matt, I am so glad that we found each other on our pursuits of happiness. My heart thanks you every day.

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CHAPTER 1

Introduction

Statement of the Problem

Have you ever felt angry at yourself for committing an error, saying something silly at a social gathering, or forgetting where your keys are (again)? Although it may be easy to recall an experience of anger at yourself, the emotion concept of "self-anger" is ill-defined and under-researched. Some believe self-anger is a type of anger, not a distinct emotion (Silva, 2022). While self-anger bears similarities to traditional anger ("other-anger"), it also shares common ground with shame and guilt (Ellsworth & Tong, 2006). In addition, self-anger shares some ruminative qualities and self-condemning thoughts of depression. Given its association with anxiety and depression (Katsumata, 2015), self-anger can become maladaptive at persistent and unhealthy levels. A greater understanding of self-anger is needed to inform the treatment and care of individuals experiencing dysfunctional self-anger.

Individuals with attention-deficit/hyperactivity disorder (ADHD) may be at an increased risk for dysfunctional self-anger. The executive functioning deficits and inattentive and hyperactive/impulsive symptoms that are characteristic of ADHD may create frequent scenarios for self-anger. For example, a person with a greater propensity for forgetfulness and disorganization may misplace their keys more often than the average person, increasing their likelihood of experiencing self-anger. The relationship between ADHD and self-anger has not yet been explored in the literature. However, research shows that adults and children with ADHD are prone to increased anger and depressive tendencies compared to non-ADHD counterparts (Kitchens et al., 1999;

Ramirez et al., 1997; Richards et al., 2006; Sobanski, 2006). The association between ADHD and emotional dysregulation further supports the possibility that the ADHD population may be susceptible to increased self-anger tendencies (Blader, 2021). Following many years of challenging symptoms and self-anger-inducing incidents, adults with ADHD may be especially vulnerable to adverse mental health outcomes associated with self-anger. Their self-anger tendencies may evolve into dysfunctional, depressive tendencies over time, which aligns with the finding that major depressive disorder (MDD) is the most commonly occurring comorbidity with ADHD (Fischer et al., 2007). This study will explore the experience of self-anger and its relationship to ADHD symptoms in adults.

CHAPTER 2

Literature Review

Defining Anger

In her book *Anger and Forgiveness: Resentment, Generosity, Justice*, Martha C. Nussbaum (2016, p. 93) posited the following about anger: "…anger includes the idea of a wrongful act against something or someone important to the self, and that anger…also includes, conceptually, the idea of some sort of payback, however subtle." Although the definition of anger has long been debated (Berkowitz & Harmon-Jones, 2004), there is a consensus that anger involves the perception of unfairness or a threat to ego or status (Arslan, 2010; Elsworth & Tong, 2006; McGill et al., 2021). Furthermore, anger is said to result from attention to both the unpleasantness of the outcome and the blameworthy agent (Clore & Centerbar, 2004). The blameworthy agent is often another person who becomes the target of vengeance or payback. Anger has been differentiated into state and trait anger (Arslan, 2010). State anger is situational and temporary, whereas trait anger is a disposition to become easily angered. Anger can be suppressed and held in (anger-in) or outwardly expressed via words or actions (anger-out) (Arslan, 2010). Anger expression can reveal much about a person's coping capacity and emotional regulation.

Researchers also debate the utility of anger. Drawing on Stoic philosophy, Nussbaum (2016, p. 93) argued that anger is almost always irrational due to faulty beliefs that avenging a wrong or "downranking" a wrongdoer will restore what was damaged or lost. Buddhism similarly expresses that anger has many negative consequences (Ariyabuddhiphongs, 2014). However, many believe "anger can be a good thing" (American Psychological Association [APA], n.d.). Evolutionarily, anger has been

advantageous to our species (Averill, 1983). Nussbaum (2016) conceded that anger can be helpful by signaling to the self and others that a wrong has occurred. She coined the term "transition-anger," a rational emotion that involves acknowledging a wrong and orienting toward future change (Nussbaum, 2016, p. 35). Even though anger has the potential to be maladaptive and dysfunctional, the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM–5; APA, 2013) does not contain any anger-related disorders (McGill et al., 2021). Intermittent explosive disorder may be the closest to an anger disorder but focuses more so on aggression and behavioral outbursts. Although anger and aggression are often linked, the two are not mutually exclusive (Averill, 1983). Ahmed and his colleagues (2012) offered support for four distinct clinical presentations of anger that may be useful in informing the assessment and treatment of anger.

Anger in the Context of Emotion Theories and Semantics

The twentieth century gave rise to emotion theories ranging from psychophysiological to behavioral to cognitive in nature (Averill, 1983). Whereas some emotion theories failed to gain traction, others have had lasting impacts on our current understanding (and misunderstanding) of emotions. Categorical theorists propose that there are a small number of "primary" emotions (e.g., "joy," "sadness," and "anger") that are universally experienced by all people (Jackson et al., 2019). The model encourages the incorporation of universal emotion concepts into diverse languages. However, it fails to address how emotions can be experienced and understood differently across cultures. Jackson and his colleagues (2019) compared the meaning of emotion words that are typically associated with the same emotion concept within various languages. They found

wide variability in emotion semantics across 20 language groups. Depending on the language, "anger" was linked to "envy," "hate," "bad," and "proud" (Jackson et al., 2019).

Additionally, Wierzbicka (1992) found that some languages, like Ilongot and Ifaluk, lack a reasonable equivalent to the English concept of anger. These findings imply that we cannot reliably predict the meaning of anger across linguistic contexts. Therefore, studying the experiential aspects of self-anger is essential to understanding the emotional concept from individual perspectives.

Contrary to categorists, appraisal theorists believe there are endless emotions (Ellsworth & Tong, 2006). The model assumes that the cognitive appraisal of a stimulus situation determines the resulting emotion. People appraise the same stimuli in different ways, thus enabling a broader range of emotions (Lindquist, 2013). Appraisals of goal blockage and unpleasantness of an event have been linked to anger but tend to apply to negative emotions more broadly (Ellsworth & Tong, 2006). Appraisals of other-agency, or placing blame on another person, have been highly and uniquely associated with anger. Appraisal theory implies that all anger instances result from this exact mechanism (Lindquist, 2013). Research is needed to determine if appraisal theory can be rightfully applied to self-anger.

The constructionist model accounts for the influence of perception on emotions (Bishop & Reed, 2022). According to Lindquist's (2013) modern constructivist approach, conceptualizing one's bodily sensations and external stimuli leads to a unique combination of feelings, behavior, physiology, facial expression, and vocal acoustics. The conceptualization is influenced by preexisting knowledge and social factors, including culture, language, and societal norms (Averill, 1983; Bishop & Reed, 2022).

Social rules contribute to one's perception of who is wrong and deserves blame. This is central to experiences of anger; however, the same may not be true of self-anger. As we turn the discussion to self-anger, it will be important to conceptualize this emotion concept and determine where it fits in the context of emotion theories and semantics.

Self-Anger as a Construct

Given our discussion of anger, what happens when the target of anger is yourself? Anger toward the self, or "self-anger," is an under-researched topic. James R. Averill, a pioneer of anger studies, alluded to anger toward the self in 1983 but did not examine it in depth. As of 2024, a ProQuest search of the term "self-anger" yielded 21 peer-reviewed papers, only two of which empirically studied the topic. Self-anger occurs when one part of the self confronts and antagonizes another part of the self that has been deemed offensive or wrongful (Silva, 2022). For example, self-anger may result when one aspect of the personality becomes angry with another, such as when one's productive self becomes angry with their lazy self (Nussbaum, 2016, p. 129). In this way, self-anger meets the other-agency criterion of traditional anger, which will be referred to as "other-anger" for clarity. Self-anger is also similar to other-anger in that both identify with a "hot, empowered arousal" (Silva, 2022, p. 240). However, self-anger shares qualities of guilt and shame, suggesting that self-anger is not simply a branch of anger but a distinct emotional presentation (Ellsworth & Tong, 2006). Along with guilt and shame, self-anger has been referred to as a “self-conscious emotion” due to its introspective and self-evaluative properties (Tao et al., 2023).

Self-anger differs from other-anger, guilt, and shame in several critical ways. Regarding action tendencies, other-anger encourages retribution, whereas self-anger is

linked to avoidance or escape (Ellsworth & Tong, 2006). Guilt and shame are more closely associated with a desire to make amends (Ellsworth & Tong, 2006). In addition, an angry person believes that they were right and that a moral violation occurred. Those who feel guilt or shame also perceive moral violations, although they view themselves as the perpetrators of the wrongful act. In contrast, people who are angry at themselves view themselves as wrong but do not perceive it as a moral violation (Ellsworth & Tong, 2006). An instance of self-anger may occur in response to the failure to meet a personal goal, like remembering one's car keys, which is distinct from the moral goals of guilt and shame (Silva, 2022). Shame occurs when one does not live up to one's ideals, and guilt occurs when one does not act in accordance with valued norms (Silva, 2022). However, the goals of self-anger can overlap with those of shame and guilt.

Self-anger is also distinct from other-anger, guilt, and shame in that it is less socially oriented. A study found that 98% of other-anger, guilt, and shame instances involved other people, whereas 48% of self-anger scenarios did not involve others (Ellsworth & Tong, 2006). Therefore, self-anger should be examined as its own entity instead of equated to other negative evaluative emotions or other-anger.

The benefits and utility of self-anger have been debated in the literature. Those who view other-anger as motivating and valuable are likely to view self-anger as similarly positive. Self-anger has been associated with help-seeking behavior, which may promote self-improvement (Silva, 2022). However, anger is a slippery slope in which one may pursue payback or vengeance instead of rational, future-oriented change. Self-anger can be similarly irrational and lead to adverse outcomes in turn. The language used during instances of self-anger (e.g., "I should not have forgotten my keys, or that my

exam was today. I should not have been so indecisive" [Silva, 2022]) is suggestive of demandingness, a core irrational belief in rational emotive behavior therapy theory (DiGiuseppe et al., 2014). Persistent demandingness leads to negative dysfunctional emotions that can disrupt livelihood. Furthermore, self-anger has been found to predict depression and anxiety directly and indirectly through mediating rumination (Katsumata, 2015). It is possible that routinized self-anger increases ruminative tendencies, which are associated with depressive and anxiety disorders (Kim et al., 2011). High levels of rumination may then give way to self-condemnation, which is characteristic of depression. Given the potential negative outcomes of self-anger, we must further our understanding of this emotional experience to guide the assessment and treatment of those experiencing maladaptive self-anger.

Emotional Dysregulation in ADHD

Although not a diagnostic criterion, emotional dysregulation is a common feature in those with ADHD. According to Blader (2021), 30% to 45% of children with ADHD experience significant emotional impairments. Impairments may include broad frustration intolerance or a higher frequency of temper outbursts (Godovich et al., 2020). Weak executive functioning skills, like planning, working memory, and response inhibition, are said to contribute to emotional impairment (Blader, 2021). Considering these findings, researchers have suggested the addition of an irritability/emotional impulsivity classifier or symptom to the ADHD diagnostic criteria (Junghänel et al., 2022; McDonagh et al., 2019). Such a change would have implications for treating ADHD in childhood and adulthood.

The connection between ADHD and anger has been explored in the literature. The existing literature supports a higher tendency toward anger in adults with ADHD compared to non-ADHD counterparts (Ramirez et al., 1997; Richards et al., 2006). ADHD has been associated with elevated levels of both trait and state anger (Ramirez et al., 1997). A study of trait anger linked ADHD to anger reactions and immediacy, not anger temperament (Lubke et al., 2015). The researchers hypothesized that impulsivity in ADHD mediates abrupt and intense angry reactions. Impaired response inhibition, a precursor of impulsivity, has been cited as a key characteristic of ADHD that leads to anger dysregulation (Ramirez et al., 1997; Richards et al., 2006). Different neuropsychological functions have been linked to different aspects of anger regulation. McDonagh and colleagues (2019) found that the ability to shift attention significantly predicted trait anger and anger expression, whereas response inhibition significantly predicted anger control. The neuropsychological correlates of self-anger are currently unknown.

The relationship between ADHD and self-anger has not yet been examined in the literature. Drawing on our preliminary definition of self-anger, one with ADHD may experience self-anger when their focused self becomes angry with their disorganized/forgetful/impulsive/inattentive self. If they believe that a goal is achievable (like remembering where they put their keys) and fail, they may be more likely to experience self-anger than shame, which occurs when one believes that they are "unfit to live up to the ideals one values" (Silva, 2022, p. 241). ADHD is associated with weak working memory, particularly the self-regulatory function that is responsible for goal-directed behavior (Nyman et al., 2010). If executive functioning deficits repeatedly

hinder goal attainment, an individual with ADHD may begin to negatively evaluate their global sense of self, which is central to shame and depression (Bilevicius et al., 2018). In fact, inattentive and hyperactive/impulsive symptoms have been found to predict depression via mediating rumination (Horibe & Hasegawa, 2020). Interestingly, self-anger also indirectly predicts depression though rumination (Katsumata, 2015). More research is needed to investigate the role of rumination in both self-anger and depression processes.

Given the similarities between self-anger and depression, reviewing the literature on ADHD and depression may better inform our understanding of ADHD and self-anger. Self- and parent-report data revealed that children with ADHD experience significantly more depression than non-ADHD children (Kitchens et al., 1999). Risk factors for comorbid depression in youth with ADHD include greater use of maladaptive emotion regulation skills, like self-blame and rumination, and less frequent use of adaptive skills (Mayer et al., 2022). In addition, children with ADHD must contest stigmas about their behavior, social distance (Meza et al., 2019), and negative affective climate in the home (Whalen et al., 2009). Negative family dynamics in homes of children with ADHD is an issue across cultures (Alizadeh et al., 2007; Araujo et al., 2017; Chu et al., 2012). Children with higher levels of externalizing behaviors may be especially vulnerable to criticism and interpersonal problems in home and academic settings. In a study of young adults, hyperactive/impulsive symptoms were linked to rumination directly and indirectly via interpersonal conflict, emphasizing the impact of social stressors on those with ADHD (Horibe & Hasegawa, 2020). Comorbid depressive tendencies are known to persist into adulthood as well (Sobanski, 2006; Uchida et al., 2018). Sobanski (2006)

reported that 30% to 50% of adults with ADHD experience at least one depressive episode during their lifespans. Furthermore, MDD is one of the most frequently occurring lifetime comorbidities in adults with ADHD (Fischer et al., 2007). We must further explore self-anger to better inform treatment options as early as childhood and prevent the onset of comorbidities like depression.

ADHD symptoms commonly persist into adulthood (Uchida et al., 2018). A recent study found that 90% of an ADHD youth sample continued to experience symptoms as young adults (Sibley et al., 2022). This implies that many adults with ADHD continue to need support for their symptoms and emotional needs, which may include self-anger. Existing research supports associations between ADHD in adults and other-anger, rumination, and depression but fails to address self-anger. Adults with ADHD may be more susceptible to behaviors that promote self-anger than non-ADHD adults, which places them at an increased risk for ruminative tendencies and depression. For this reason, research is needed to examine the relationship between ADHD symptom severity and self-anger in adults.

CHAPTER 3

Present Study

Hypotheses

The four study hypotheses are as follows:

1. As ADHD symptom severity increases on the ADHD Symptom Inventory, individuals will experience more self-anger, as reported in the total score of the Anger Disorders Scale at Self Form (ADS@S).
2. As ADHD symptom severity increases on the ADHD Symptom Inventory, anger rumination symptoms will also increase, as reported in the total score of the Anger Rumination Scale (ARS; Sukhodolsky et al., 2001).
3. As ADHD symptom severity increases on the ADHD Symptom Inventory, depression symptoms will also increase, as reported in the total score of the Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001).
4. The data will fit a mediation model in which anger rumination and self-condemnation symptoms mediate the relationship between ADHD symptom severity on the ADHD Symptom Inventory and self-anger, as reported in the total score of the ADS@S.

CHAPTER 4

Methods

Procedure

This study received approval from the institutional review board at St. John's University. Participants were recruited through online advertising on social media platforms, including Facebook, Reddit, and university email groups. A poster inviting people to participate in the study was posted in online adult ADHD support groups to increase the likelihood of acquiring clinically diagnosed subjects for the study. Participants were also recruited through Amazon Mechanical Turk (MTurk), a website where workers are paid for their participation in survey research. Research supported MTurk as a promising source of adult subjects with ADHD as compared to offline samples (Wymbs & Dawson, 2019). Efforts were made to include subjects with clinical diagnoses of ADHD to ensure that the higher end of the ADHD severity spectrum was represented. An invitation to participate in the study was also posted on the online SONA subject recruitment system at St. John's University. To capture the higher end of the age spectrum, participants were recruited through Prime Panels, a platform for online research panels that is effective in recruiting older adult participants for online data collection (Verma et al., 2021).

The study announcement contained a Qualtrics survey link to be completed online (see Appendix A). Upon opening the link, participants reviewed logistical and ethical information about the study and an electronic consent form (see Appendix B). Participants were informed that the survey would take 20-30 minutes to complete. Those who consented to participate anonymously completed the following measures: a

demographic questionnaire (see Appendix C), Assessment of Self-Anger Episode (see Appendix D), Attention-Deficit/Hyperactivity Disorder (ADHD) Symptom Inventory (see Appendix E), Anger Disorders Scale at Self Form (ADS@S; DiGiuseppe & Tafrate, 2004; Appendix F), Anger Rumination Scale (ARS; Sukhodolsky et al., 2001; Appendix G), Self-Rating Subscale of the Attitudes and Beliefs Scale (SR-ABS-2; DiGiuseppe et al., 2018; Appendix H), and Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001; Appendix I). Participants recruited through MTurk and Prime Panels received a small monetary compensation ($2.75). Undergraduate psychology students recruited through SONA received class credit (0.5) for their participation.

Participants

A total of 549 individuals attempted the survey. Of those people, 424 completed 75% or more of the survey, and 75 completed 50% or less. The largest number of participants accessed the survey through Reddit (*n* = 159), and an additional 152 participants were recruited through the St. John's University SONA system. Frequency data for the demographic characteristics of the sample are summarized in Table 1. The ages of the participants ranged from 18 to 71 years old, with an average of 30 years old. 207 (37.7%) of the participants were between the ages of 18 and 24, 156 (28.3%) were between 25 and 34, 103 (18.7%) were between 35 and 44, 30 (5.5%) were between 45 and 54, 18 (3.3%) were between 55 and 64, five (1%) were between 65 and 74, and 30 (5.5%) were missing responses. 352 (64.1%) of the participants identified as female, 152 (27.7%) were male, 10 (1.8%) were non-binary/third gender, two (0.4%) were transgender males, zero (0%) were transgender females, four (0.7%) responded "Other," and 29 (5.3%) were missing responses. Regarding racial identity, 347 (63.2%) identified

as Caucasian, White, of European descent, or European, 69 (12.6%) were Hispanic, Latino, Latina, or Latinx, 57 (10.4%) were African American, of African descent, African, of Caribbean descent, or Black, 38 (6.9%) were East Asian, South Asian, or Asian American, nine (1.6%) were Middle Eastern, 15 (2.7%) were Native American or Alaskan Native, four (0.7%) were Native Hawaiian or another Pacific Islander, and 10 (1.8%) responded "Other."

Regarding marital status, 233 (42.4%) participants were single, 148 (27.0%) were married, 55 (10.0%) were living separately but in a romantic relationship, 50 (9.1%) were living with a domestic/romantic partner, 26 (4.7%) were divorced/separated, three (0.5%) were widowed, four (0.7%) selected "Other," one (0.2%) selected "Prefer not to say," and 29 (5.3%) were missing responses. Regarding highest level of education, 14 (2.6%) participants attended some high school, five (1.1%) held a General Education Diploma (GED), 89 (16.2%) held a high school diploma, 150 (27.3%) attended some college, 21 (3.8%) held an associate's degree, 150 (27.3%) held a bachelor's degree, 73 (13.3%) held a master's degree, 13 (2.4%) held a doctoral, law, or professional degree, two (0.4%) responded "Other," one (0.2%) responded "Prefer not to say," and 29 (5.3%) were missing responses.

At the time of data collection, 175 (31.9%) participants were receiving individual psychotherapy or counseling, 25 (4.6%) were receiving couples therapy, 18 (3.3%) were receiving group therapy, and 41 (7.5%) were in a drug or alcohol treatment program. In addition, 164 (29.9%) participants were taking psychotropic medication for emotional or behavioral problems.

Several questions inquired about treatments suggested to the participants by medical or mental health professionals. 215 (39.2%) participants were recommended medication to treat depression-related problems, and 153 (27.9%) participants were recommended to seek counseling. To treat anger-related problems, 84 (15.3%) participants were recommended medication, and 65 (11.8%) participants were recommended to seek counseling.

216 (39.3%) participants have received a diagnosis of ADHD or ADD from a medical or mental health professional. The predominantly inattentive presentation was the most prevalent (n = 93, 16.9%) followed by the combined presentation (n = 75, 13.7%) and the predominantly hyperactive/impulsive presentation (n = 25, 4.6%) respectively. 20 (3.6%) participants reported that they were unsure which presentation or diagnosis described them. Of those who have not received an ADHD or ADD diagnosis, 83 (15.1%) held some degree of suspicion that they may meet diagnostic criteria for the disorder. 208 (37.9%) participants have been prescribed medication to treat hyperactivity and/or inattention.

Table 1

Demographic Characteristics of the Sample

Baseline characteristic	*n*	%
Gender		
Female	352	64.1
Male	152	27.7
Non-binary/Third Gender	10	1.8
Transgender Female	0	0
Transgender Male	2	0.4
Other	4	0.7
Age		
18-24	207	37.7
25-34	156	28.3
35-44	103	18.7
45-54	30	5.5
55-64	18	3.3
65-74	5	0.1
Race		
African American, of African Descent, African, of Caribbean descent, or Black	57	10.4
East Asian, South Asian, or Asian American	38	6.9
Caucasian, White, of European descent, or European (including Spanish)	347	63.2

Hispanic, Latino, Latina, or Latinx	69	12.6
Middle Eastern	9	1.6
Native American	15	2.7
Native Hawaiian or another Pacific Islander	4	0.7
Other	13	2.4
Prefer not to say	10	1.8
Marital Status		
Divorced/Separated	26	4.7
Living Separately but in a romantic relationship	55	10.0
Living with a domestic/romantic partner	50	9.1
Married	148	27.0
Single (never married)	233	42.4
Widowed	3	0.5
Other	4	0.7
Prefer not to say	1	0.2
Highest level of education completed		
No High School	1	0.2
Some High School	14	2.6
GED	6	1.1
High School Diploma	89	16.2
Some College	150	27.3
Associate's Degree	21	3.8
Bachelor's Degree	150	27.3

Master's Degree	73	13.3
Doctoral, Law, or Professional Degree	13	2.4
Other	2	0.4
Prefer not to say	1	0.2
Current Psychotherapy/Counseling Status		
Individual	175	31.9
Group	18	3.3
Couple	25	4.6
None	323	58.8
Prefer not to say	4	0.7
Currently enrolled in a drug or alcohol treatment program	41	7.5
Currently taking psychotropic medication	164	29.9
Treatment recommendations		
Counseling for anger-related problems	65	11.8
Counseling for depression-related problems	153	27.9
Medication for anger-related problems	84	15.3
Medication for depression-related problems	215	39.2
ADD or ADHD Diagnosis[a]		
Yes	216	39.3
No	285	51.9
Unsure	19	3.5
ADD or ADHD subtype/presentation, if diagnosed		
Predominantly Inattentive	93	16.9

Predominantly Hyperactive/Impulsive	25	4.6
Combined	75	13.7
Unsure	20	3.6
Suspicion that one may meet criteria for ADD or ADHD, if undiagnosed		
Definitely not	63	11.5
Probably not	79	14.4
Might or might not	79	14.4
Probably yes	59	10.7
Definitely yes	24	4.4
Previously or currently prescribed medication to treat hyperactivity and/or inattention		
Yes	208	37.9
No	301	54.8
Unsure	8	1.5

Note. Refer to the "Participants" subsection for more information.

[a] Although attention-deficit disorder (ADD) was replaced by attention-deficit/hyperactivity disorder (ADHD) in the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.; *DSM–III-R;* American Psychiatric Association, 1987), we inquired about ADD as some may have been diagnosed prior to this change.

Measures

Demographics Survey. Participants responded to questions about their age, gender identity, racial identity, marital status, highest level of education, and occupation. They also indicated if they were currently participating in psychotherapy/counseling or a drug or alcohol treatment program. Participants were asked if they had ever received a recommendation for medication or counseling for anger or depression-related issues. Several questions pertained to ADHD, including whether the participant has a diagnosis of ADHD, has been prescribed medication for ADHD, or has believed that they meet the criteria for ADHD, if undiagnosed.

Assessment of Self-Anger Episode. This questionnaire was developed by Ahmed and DiGiuseppe (2021) to examine the characteristics of self-anger and what an experience of self-anger is like. It draws on Averill's (1983) qualitative measure of episodic anger. Participants were asked to describe and answer questions about their most intense experience of self-directed anger within the past two weeks. Questions inquired about the thoughts, emotions, behaviors, goals, and physiological sensations involved in the emotional experience.

Attention-Deficit/Hyperactivity Disorder (ADHD) Symptom Inventory. This 20-item questionnaire was developed by combining items from the Adult ADHD Self-Report Scale (ASRS-V1.1; Kessler et al., 2005) and the Adult ADHD Self-Report Screening Scale for DSM-5 (ASRS-5; Ustun et al., 2017). The ASRS-V1.1 is an 18-item self-assessment measure that corresponds to the 18 symptoms of ADHD in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; DSM–IV; APA, 1994). It has good internal consistency ($\alpha = .84$) and concurrent validity with an ADHD rating

scale designed for clinician administration (r = .83) (Adler et al., 2006). The ASRS-5 is an updated screener that aligns with the DSM-5 criteria for ADHD. It detects ADHD in adults with high sensitivity and specificity (Ustun et al., 2017). We combined the two questionnaires to form a more comprehensive measure of ADHD. The questions reflect manifestations of ADHD symptoms in adults, including restlessness, poor time management, and difficulty concentrating. Participants were asked to rate how often they have experienced each symptom over the past six months on a 5-point Likert scale ranging from never (0) to very often (4). Each participant's summary score served as a predictor of ADHD symptomatology.

Anger Disorders Scale at Self Form (ADS@S). The items for the ADS@S were adapted from the ADS:SF, an abbreviated version of the Anger Disorders Scale (ADS; DiGiuseppe & Tafrate, 2004). The ADS is a self-report measure used to assess clinically dysfunctional levels of anger in individuals aged 18 and up. It has good psychometric properties (Barnes & Lambert, 2007). The ADS:SF is an 18-item questionnaire used as a screener of anger problems in the traditional sense of anger directed toward someone or something else. For this study, the items were altered to inquire about anger at oneself, and the questionnaire was named ADS@S.

Anger Rumination Scale (ARS). The ARS is a measure of anger rumination, defined as "the tendency to focus on angry moods, recall past anger episodes, and think over the causes and consequences of anger episodes" (Sukhodolsky et al., 2001, p. 689). It is a 19-item self-report questionnaire. Participants were asked to indicate how well each statement describes them and their responses to anger on a 4-point Likert scale ranging from almost never (1) to almost always (4). A total ARS score was generated for

each participant by summing up the responses for the 19 items. Higher scores corresponded to higher levels of anger rumination. The ARS has adequate test-retest reliability and internal consistency (Sukhodolsky et al., 2001).

Self-Rating Subscale of the Attitudes and Beliefs Scale (SR-ABS-2). The ABS-2 (DiGiuseppe et al., 2018) is a measure of rational and irrational beliefs that lead to disturbance, as Ellis (1994) proposed in his rational emotive behavior therapy theory. It includes a Self-Rating subscale consisting of 18 items. Nine of the items reflect self-condemnation or irrational global, negative evaluations of the self. The other nine items reflect rational self-acceptance. These were reverse scored. Participants were asked to indicate how much they agree with each statement on a 5-point Likert scale ranging from strongly disagree (0) to strongly agree (4). The measure has excellent internal consistency and strong confirmatory factor analysis support (DiGiuseppe et al., 2018; DiGiuseppe et al., 2020).

Patient Health Questionnaire (PHQ-9). The PHQ-9 scale is a tool used for the initial diagnosis of MDD (Kroenke et al., 2001). Participants reported on the frequency of nine symptoms over the last two weeks by using a 4-point Likert scale ranging from not at all (0) to nearly every day (3). A total score was produced and assigned to one of five depression severity categories: minimal, mild, moderate, moderately severe, or severe. A checklist was included that asked to what extent the reported problems (if any) affect daily functioning. Reliability and validity are good psychometric properties of this measure (Kroenke et al., 2001).

CHAPTER 5

Results

All data were electronically collected and distributed through the web-based research program Qualtrics. Analyses were conducted using IBM SPSS Statistics 29.0.2.0 (2024) and JASP 0.18.2.0 (2024). The first two sections conceptualize state anger toward the self and review the variables that predict self-anger. The third section reviews the questionnaire that was adapted to quantitatively measure trait anger toward the self. The remaining sections review the relevant data to address the four study hypotheses.

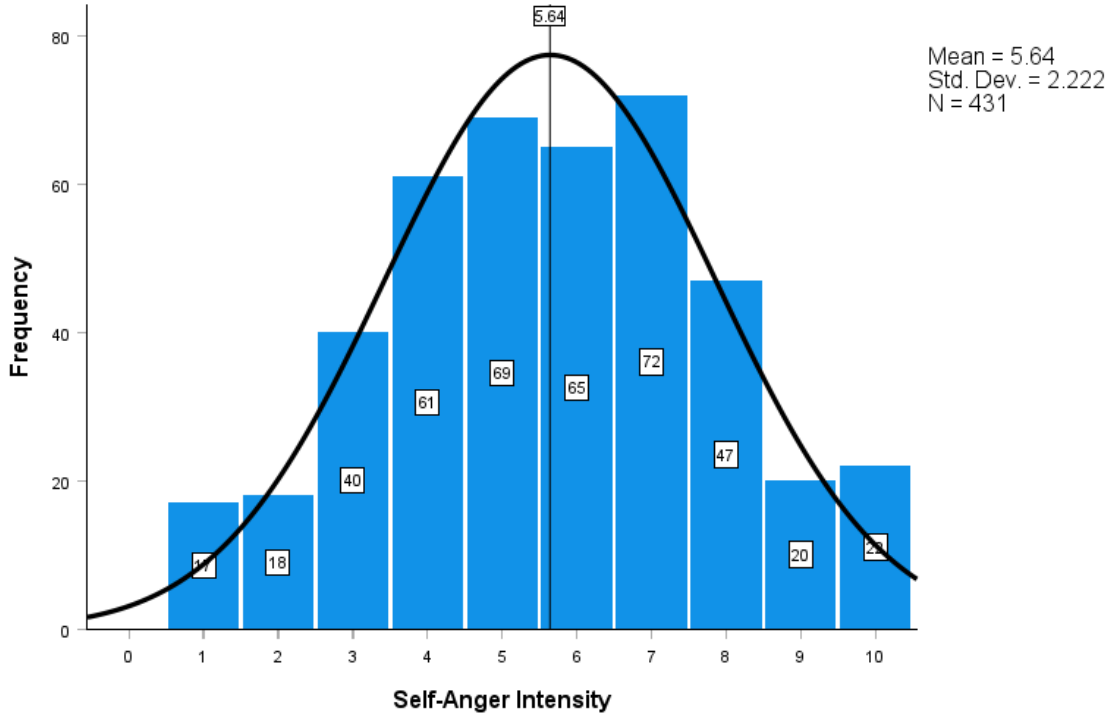
State Anger Toward the Self

The Assessment of Self-Anger Episode was administered to explore the characteristics of state self-anger based on incidents recounted by the participants. Descriptions of their most recent and intense episodes of self-anger were reviewed for common content and themes of triggering events. Work and school-related issues were the most common themes in the 452 written responses. Approximately 25% of responses included a form of the term "school," "work," or "job" (n = 114, 25.22%). 16% of responses included the term "assignment," "study," "exam," "test," or "grade" (n = 73, 16.15%). Variations of the terms "friend," "family," "child," "son," "daughter," "husband," "wife," "spouse," and "partner" appeared in approximately 10% of responses (n = 44, 9.74%). Regarding the accuracy and relevancy of responses in addressing the prompt, there appeared to be many descriptions of anger toward others rather than toward the self. The responses also included other emotion words, such as upset (n = 18), disappointed (n = 8), shame (n = 5), and regret (n = 6).

The participants were asked to rate the intensity of their self-anger episodes on a scale of 1 to 10, where 1 was Very Mild and 10 was Very Intense. Figure 1 shows that the intensity ratings of the self-anger episodes were normally distributed (M = 5.64, SD = 2.22). This indicates that more people rated their self-anger as moderate rather than at the high or low extremes of the scale. In addition, the mean indicates that there is a slight skew in the direction of higher self-anger intensity during the episodes.

Figure 1

Distribution of the Intensity of the Self-Anger Episodes



Note. The intensity of the self-anger episode was rated on a scale of 1 to 10, where 1 was Very Mild and 10 was Very Intense.

Table 2 indicates that approximately 30% of respondents stayed angry with themselves for half a day or longer (n = 159, 28.9%). More than 16% of individuals

remained angry at themselves for more than a day. This suggests that self-anger can be disruptive for a sizeable portion of people, and the duration of such episodes is negatively skewed. As shown in Figure 2, more people believed that they could control the outward expression of anger toward themselves than they could not ($M = 6.59$, $SD = 2.43$).

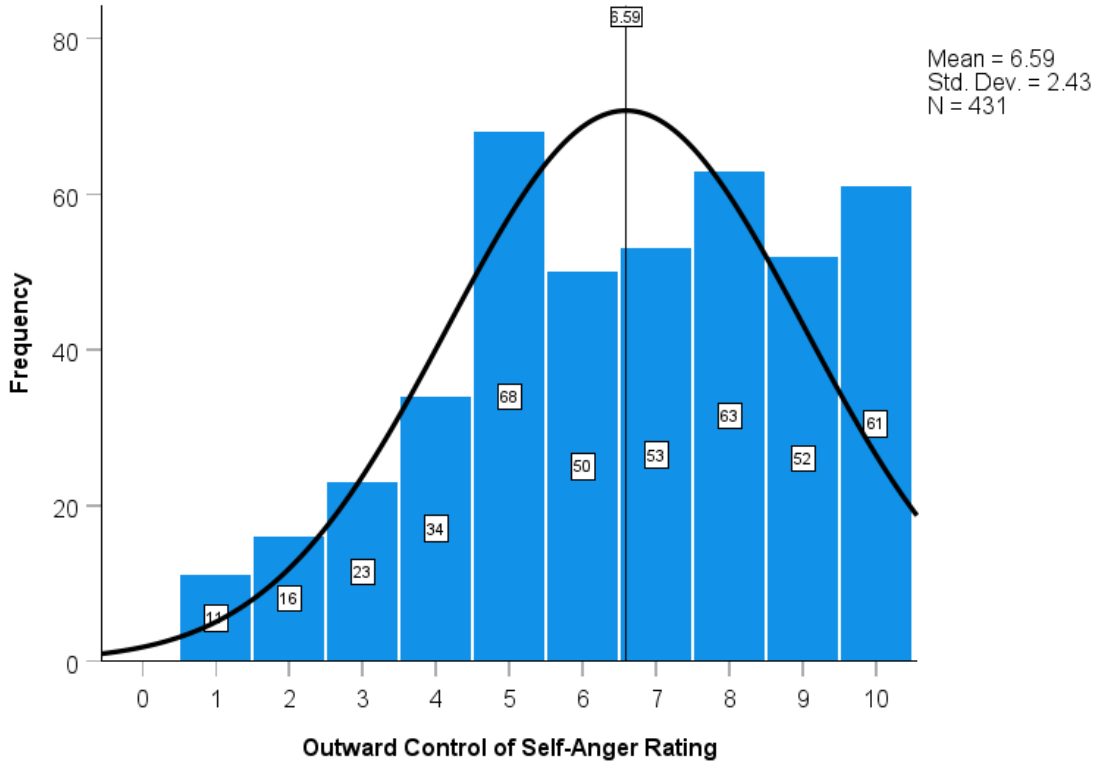
Table 2

Frequency Table of the Duration of the Self-Anger Episodes

Time Duration	*n*	%
Less than 5 minutes	38	6.9
About 5-10 minutes	67	12.2
10 minutes to ½ hour	71	12.9
½ hour to 1 hour	38	6.9
1-2 hours	58	10.6
½ day	35	6.4
1 day	31	5.6
1-2 days	33	6.0
More than 2 days	31	5.6
1 week	5	0.9
More than a week	24	4.4
Missing	118	21.5

Figure 2

Degree that Participants Believed They Could Control the Outward Expression of Anger at Themselves



Note. Self-control of the outward expression of self-anger was rated on a scale of 1 to 10, where 1 was "Not at all in control" and 10 was "Completely in control."

Participants were asked to select the most important goal they wished to accomplish when they experienced anger with themselves. These results appear in Table 3. Most individuals sought to achieve helpful or adaptive goals (n = 396, 72.2%), whereas a small percentage of people wanted to punish themselves (n = 35, 6.4%). When asked to what extent they accomplished their identified goal, over half of the participants believed that they had slightly or moderately accomplished their goal (n = 312, 56.8%). These results appear in Table 4. The participants were also asked to rate the overall

outcome of the self-anger episode on a scale of 1 to 10, where 1 was as positive as possible and 10 was as negative as possible. Figure 3 shows that slightly more people rated the overall outcome of their self-anger episode as somewhat negative (M = 5.55, SD = 2.13).

Table 3

Frequency Table of the Primary Goal One Wished to Accomplish During the Self-Anger Episodes

Item	*n*	%
To get rid of my tense feeling	126	23.0
To increase my understanding of what happened so I could avoid mistakes	156	28.4
To help change my behavior or act more positively	114	20.8
To punish myself so I would not do bad or dumb things again	35	6.4
Missing	118	21.5

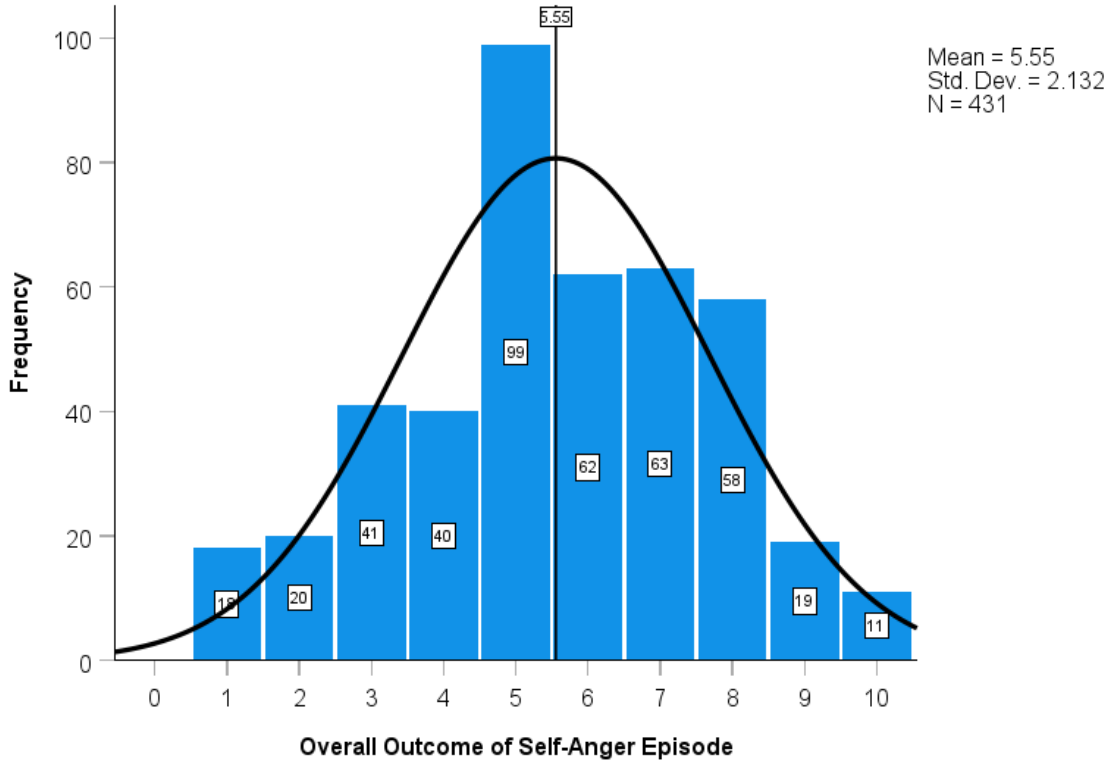
Table 4

Frequency Table of the Extent to Which Participants Accomplished the Primary Goal of Their Self-Anger Episodes

Answer Selection	*n*	%
Not at all	59	10.7
A little	167	30.4
Moderately	145	26.4
Very much	60	10.9
Missing	118	21.5

Figure 3

Distribution of the Overall Outcome of the Self-Anger Episodes



Note. The overall outcome of the self-anger episode was rated on a scale of 1 to 10, where 1 was "Positive" and 10 was "Negative."

Several questions inquired about the setting of the self-anger episode. As shown in Table 5, almost half of the participants were angry at themselves while at home (n = 241, 43.9%). Apart from those who could not recall the day of the week on which the episode occurred, most people reported that their episode of self-anger occurred on a Monday (n = 90, 16.4%) between noon and 3:00 PM (n = 93, 16.9%). More information can be found in Tables 6 and 7.

Table 5

Frequency Table of the Location of the Self-Anger Episodes

Location	N	%
At home	241	43.9
At school	66	12.0
At work	77	14.0
At a social engagement	19	3.5
While driving	15	2.7
Other	33	6.0
Missing	98	17.9

Table 6

Frequency Table of the Day of the Week the Self-Anger Episodes Occurred

Day of the Week	*n*	%
Monday	90	16.4
Tuesday	62	11.3
Wednesday	59	10.7
Thursday	48	8.7
Friday	42	7.7
Saturday	26	4.7
Sunday	23	4.2
I don't remember	101	18.4
Missing	98	17.9

Table 7

Frequency Table of the Time of Day the Self-Anger Episodes Occurred

Time of Day	*n*	%
Early in the morning	15	2.7
Between 6 AM and 9 AM	32	5.8
Between 9 AM and noon	78	14.2
Between noon and 3 PM	93	16.9
Between 3 PM and 6 PM	62	11.3
Between 6 PM and 9 PM	55	10.0
Between 9 PM and midnight	34	6.2
In the middle of the night	15	2.7
I don't remember	67	12.2
Missing	98	17.9

Predicting Self-Anger Ratings

Several simple linear regressions were performed using the data collected from the Assessment of Self-Anger Episode to examine the cognitions, physiological symptoms, and behaviors associated with self-anger.

In the first regression model, self-anger intensity in the incident described was regressed on situations that led to the incident of self-anger (Situations Before). Situations Before predicted 32.6% of the variance in self-anger intensity ($R = .57$, $R^2 = .33$). The analysis demonstrated that the effect of Situations Before was unlikely to be zero for self-anger intensity, $\Delta F(13, 417) = 15.50$, $p < .001$. An analysis of the

contribution of different situations before the self-anger experience revealed that several variables contributed significantly to the unique variance beyond that of all the variables combined.

The zero-order correlation of the statement "I got frustrated about things occurring in my life" was .37. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 4.30$, $p < .001$. After controlling for the influence of the other variables, the partial correlation of this statement was .21. This represents the amount of unique variance in self-anger that this item predicts.

The zero-order correlation of the statement "I embarrassed myself" was .37. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 2.74$, $p = .006$. After controlling for the influence of the other variables, the partial correlation of this statement was .13.

The zero-order correlation of the statement "My boss or supervisor criticized me" was .35. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 3.35$, $p = .001$. After controlling for the influence of the other variables, the partial correlation of this statement was .16.

The zero-order correlation of the statement "I made the same mistake again" was .37. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 4.56$, $p < .001$. After controlling for the influence of the other variables, the partial correlation of this statement was .22.

In the second regression model, self-anger intensity was regressed on cognitions that occurred during the incident of self-anger (Cognitions During). Cognitions During predicted 31.6% of the variance in self-anger intensity ($R = .56$, $R^2 = .32$). The analysis

demonstrated that the main effect of Cognitions During on self-anger intensity was unlikely to be zero, $\Delta F(14, 416) = 13.71$, $p < .001$. An analysis of the contribution of different Cognitions During revealed that several variables contributed significant unique variance beyond that of all the variables combined.

The zero-order correlation of the statement "I'm a disappointment to myself and others" was .47. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 3.24$, $p < .001$. After controlling for the influence of the other variables, the partial correlation of this statement was .16.

The zero-order correlation of the statement "Making this mistake was awful and terrible" was .47. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 2.94$, $p = .004$. After controlling for the influence of the other variables, the partial correlation of this statement was .14.

The zero-order correlation of the statement "It was an accident, and it was beyond my control" was .24. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 3.06$, $p = .002$. After controlling for the influence of the other variables, the partial correlation of this statement was .15.

In the third regression model, self-anger intensity was regressed on the physiological symptoms that occurred during the incident of self-anger (Physiological Symptoms). Physiological Symptoms predicted 34.0% of the variance in self-anger intensity ($R = .58$, $R^2 = .34$). The analysis demonstrated that the main effect of physiological symptoms on self-anger intensity was unlikely to be zero, $\Delta F(7, 423) = 31.09$, $p < .001$. An analysis of the contribution of different Physiological Symptoms

revealed that several variables contributed significant unique variance beyond that of all the variables combined.

The zero-order correlation of the statement "Felt a change in breathing" was .44. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 3.00$, $p = .003$. After controlling for the influence of the other variables, the partial correlation of this statement was .14.

The zero-order correlation of the statement "Felt arms and fists tighten" was .49. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 5.20$, $p < .001$. After controlling for the influence of the other variables, the partial correlation of this statement was .25.

In the fourth regression model, self-anger intensity was regressed on the behaviors one felt like doing during the incident of self-anger (Behaviors Felt). Behaviors Felt predicted 38.7% of the variance in self-anger intensity ($R = .62$, $R^2 = .39$). The analysis demonstrated that the main effect of Behaviors Felt on self-anger intensity was unlikely to be zero, $\Delta F(11, 419) = 24.00$, $p < .001$. An analysis of the contribution of different Behaviors Felt revealed that several variables contributed significant unique variance beyond that of all the variables combined (see Table 8).

Table 8

Correlations Between Self-Anger Intensity and the Behaviors One Felt like Doing During the Self-Anger Episodes

Item	Self-Anger Intensity
	Pearson Correlation
I felt like hitting myself.	.42
I felt like cursing.	.46
I felt like lying in bed.	.22
I felt like hitting, slamming, or throwing something (an inanimate object).	.47
I felt like being alone and not speaking to anyone.	.37
I felt like acting the opposite of my angry feelings, such as being friendly, joking, etc.	.22
I felt like saying bad things about myself.	.46
I felt like doing things to calm myself, such as taking slow deep breaths, counting, etc.	.17
I felt like distracting myself with TV shows, social media, video games, etc.	.10
I felt like yelling or shouting.	.50
I felt like punishing myself.	.47

Note. $N = 431$. All the correlations (one-tailed) are significant at or below the .01 level.

The zero-order correlation of the statement "I felt like cursing" was .46. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 2.77$, $p = .006$. After controlling for the influence of the other variables, the partial correlation of this statement was .13.

The zero-order correlation of the statement "I felt like being alone and not speaking to anyone" was .37. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 3.28$, $p < .001$. After controlling for the influence of the other variables, the partial correlation of this statement was .16.

The zero-order correlation of the statement "I felt like punishing myself" was .47. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = 3.02$, $p = .003$. After controlling for the influence of the other variables, the partial correlation of this statement was .15. Notably, each statement had a small partial correlation, indicating that each behavior one felt like doing was comparably related to self-anger intensity.

In the fifth regression model, self-anger intensity was regressed on the behaviors one performed during the incident of self-anger (Behaviors Performed). Behaviors Performed predicted 26.5% of the variance in self-anger intensity ($R = .52$, $R^2 = .27$). The analysis demonstrated that the main effect of Behaviors Performed on self-anger intensity was unlikely to be zero, $\Delta F(11, 419) = 13.77$, $p < .001$. An analysis of the contribution of different Behaviors Performed revealed that several variables contributed significant unique variance beyond that of all the variables combined (see Table 9).

Table 9

Correlations Between Self-Anger Intensity and the Behaviors One Performed During the Self-Anger Episodes

Item	Self-Anger Intensity	
	Pearson Correlation	Sig. (2-tailed)
I hit myself.	-.24	< .001
I cursed.	-.27	< .001
I lay in bed.	-.05	.321
I hit, slammed, or threw something (an inanimate object).	-.32	< .001
I spent time alone and did not speak to anyone.	-.22	< .001
I acted the opposite of my angry feelings, such as being friendly, joking, etc.	-.13	.006
I said bad things about myself.	-.34	< .001
I did things to calm myself, such as taking slow deep breaths, counting, etc.	-.13	.007
I distracted myself with TV shows, social media, video games, etc.	-.05	.333
I yelled or shouted.	-.36	< .001
I punished myself.	-.35	< .001

Note. $N = 431$. Correlation is significant at the .01 level (two-tailed).

The zero-order correlation of the statement "I said bad things about myself" was -.34. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = -3.61$, $p < .001$. After controlling for the influence of the other variables, the partial correlation of this statement was -.17.

The zero-order correlation of the statement "I yelled or shouted" was -.36. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = -2.85$, $p = .005$. After controlling for the influence of the other variables, the partial correlation of this statement was -.14.

The zero-order correlation of the statement "I punished myself" was -.35. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(430) = -3.91$, $p < .001$. After controlling for the influence of the other variables, the partial correlation of this statement was -.19. Similarly to Behaviors Felt, each statement had a small partial correlation, indicating that each behavior one performed was comparably related to self-anger intensity.

Trait Anger Toward the Self

In addition to analyzing the intensity of self-anger, a scale was constructed to measure trait anger toward the self. The scale coined Anger Disorders Scale at Self Form (ADS@S) is an 18-item measure adapted from the short form of the Anger Disorders Scale (ADS; DiGiuseppe & Tafrate, 2004). An exploratory factor analysis (EFA) was performed to examine the underlying structure of the scale and the correlations among items. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy produced a value of .93, indicating that the measure met the required assumptions for factor analysis. The Bartlett's Test of Sphericity further supported the suitability of the data for analysis ($\chi^2 = 3800.89$, df = 153, $p < .001$). Principal axis factoring extraction with an Oblimin rotation

was implemented to identify the factor structure. Eigenvalues of greater than one were used to interpret the number of factors in the data set.

As can be seen in Table 10 and Figure 4, the EFA yielded a two-factor solution, explaining 54.65% of the total variance. Factor 1 contained 13 items, which appeared to measure an anger-in pattern or suppression of anger (e.g., “When I feel angry at myself, I boil inside, do not show it, and keep things in…”). Factor 2 contained five items, which appeared to measure an anger-out pattern or outward expression of anger (e.g., “When I am angry at myself, I am likely to hit objects out of frustration…”). The two factors correlated with each other .60, indicating a reasonably strong relationship between the two. There were no cross loadings (scores > .40 on more than one factor); however, one item had a poor loading of < .40 ("When I am angry at myself, I am likely to cry...”). We decided to accept the item for the analysis because it had a loading of .37 (see Table 11). We also performed a parallel analysis based on principal components to ascertain how many factors should be extracted. It yielded a two-factor solution with similar item loadings as the EFA, further supporting our findings on the structure of the ADS@S.

Table 10

Number of Factors Extracted Using the Eigenvalue ≥1 *Rule*

Factors	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	7.74	42.99	42.99
2	2.10	11.65	54.65

Note. N = 424. Extraction Method: Principal Axis Factoring.

Figure 4

Scree Plot from the Exploratory Factor Analysis of the Anger Disorders Scale at Self Form

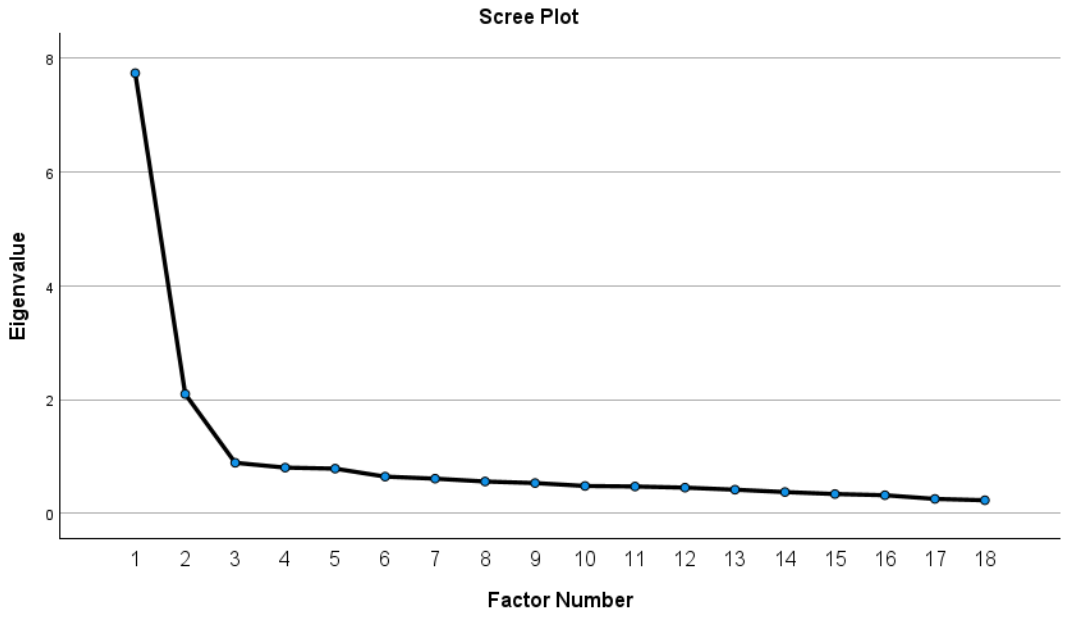


Table 11

Pattern Factor Loadings from the Exploratory Factor Analysis of Anger Disorders Scale at Self Form

Item No.	Items	Factor 1	Factor 2
1	My anger toward myself has been a problem for me…	**.73**	.15
2	I have been so angry at myself that I became aware of my heart racing...	**.42**	-.38
3	I get angry at myself and lose control of my behavior...	.05	**-.72**
4	When I get angry, I yell or scream at myself...	.03	**-.77**
5	When I feel angry at myself, I boil inside, do not show it, and keep things in...	**.62**	-.10
6	I get frustrated and angry at myself about...	**.83**	.12
7	I get angry if I make myself look bad in front of others...	**.68**	-.03
8	When I get angry at myself about something, I cannot get it out of my mind...	**.65**	-.15
9	Even though I do not show it, my anger at myself usually continues for…	**.49**	-.29
10	When I feel angry at myself, I just want to make the tension go away...	**.58**	.20
11	When I am angry at myself, I am likely to hit objects out of frustration...	-.06	**-.85**
12	When I am angry at myself, I am likely to curse at myself out of frustration...	**.43**	-.34
13	When I am angry at myself, I am likely to hit myself out of frustration...	-.06	**-.83**

14	When I am angry at myself, I am likely to cry...	**.37**	-.29
15	When I am angry at myself, I condemn myself and make things harder for myself as a punishment...	**.73**	.15
16	When I am angry at myself, I try not to hang out with other people (i.e., friends, family)...	**.42**	-.38
17	When I am angry at myself, I want to punish myself...	.05	**-.72**
18	When I am angry at myself, I have energy to yell at myself and hold myself accountable...	.03	**-.77**

Note. N = 424. Factor loadings above .40 are in boldface with the exception of Item 14, which we decided to accept, although its loading was slightly short of .40. Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.

The internal reliability of the ADS@S was investigated using McDonald's Omega. Table 12 shows that the reliability of the scale was excellent (ω = .92), indicating that the ADS@S is a reliable and valid measure of self-anger among the sample population. Removing each individual item from the scale did not improve the internal reliability, suggesting that a briefer questionnaire may sufficiently measure trait self-anger (see Table 13).

Table 12

Reliability of the Anger Disorders Scale at Self Form

Estimate	McDonald's ω	Cronbach's α	Guttman's λ2	Guttman's λ6
Point estimate	.92	.92	.92	.93
95% CI lower bound	.91	.91	.91	.93
95% CI upper bound	.93	.93	.93	.95

Note. Of the observations, 424 complete cases were used.

Table 13

Reliability of Anger Disorders Scale at Self Form if Individual Items are Dropped

Item No.	If item dropped			
	McDonald's ω	Cronbach's α	Guttman's λ2	Guttman's λ6
1	0.919	0.918	0.920	0.931
2	0.913	0.914	0.915	0.929
3	0.916	0.916	0.917	0.929
4	0.915	0.916	0.916	0.928
5	0.914	0.915	0.915	0.930
6	0.914	0.915	0.915	0.929
7	0.914	0.915	0.915	0.930
8	0.912	0.914	0.914	0.929
9	0.913	0.914	0.915	0.929
10	0.921	0.922	0.922	0.935
11	0.916	0.916	0.917	0.928
12	0.914	0.915	0.915	0.930
13	0.916	0.917	0.917	0.929
14	0.916	0.917	0.917	0.932
15	0.911	0.913	0.913	0.927
16	0.913	0.914	0.915	0.930
17	0.911	0.913	0.912	0.926
18	0.914	0.915	0.916	0.930

The following five items correlated best with the total ADS@S score: "I have been so angry at myself that I became aware of my heart racing..." (r[424] = .70, p < .001); "When I get angry at myself about something, I cannot get it out of my mind..." (r[424] = .72, p < .001); "When I am angry at myself, I condemn myself and make things harder for myself as a punishment..." (r[424] = .76, p < .001); "When I am angry at myself, I try not to hang out with other people (i.e., friends, family)..." (r[424] = .69, p < .001); and "When I am angry at myself, I want to punish myself..." (r[424] = .76, p < .001). A new variable containing these five items was created and found to be strongly correlated with the total ADS@S score (r[424] = .94, p < .001). In addition, the new variable had high internal reliability (ω = .82). This suggests that future researchers may use the five best items to reliably assess self-anger instead of administering the entire 18-item scale. Of note, the correlations between our study variables (e.g., depression, anger rumination, ADHD symptom severity) and the ADS@S are comparable to their corresponding correlations with the five best items (see Table 14).

Table 14

Correlations Between Study Variables and the Anger Disorders Scale at Self Form Versus the Five Best Items

Variable		Self-Anger Five Best Items	Self-Anger Total
Self-Anger Total	Pearson Correlation	.94	--
	N	424	424
Factor 1[a]	Pearson Correlation	.94	.97
	N	424	424
Factor 2[b]	Pearson Correlation	.67	.78
	N	424	424
Anger Rumination	Pearson Correlation	.69	.73
	N	420	420
ADHD Severity	Pearson Correlation	.59	.64
	N	424	424
Depression	Pearson Correlation	.69	.70
	N	414	414
Self-Condemnation[c]	Pearson Correlation	.65	.68
	N	415	415
Self-Acceptance[d]	Pearson Correlation	.23	.19
	N	415	415

Note. All the correlations (one-tailed) are significant at or below the .01 level.

[a] Factor 1 includes items 1, 2, 5, 6, 7, 8, 9, 10, 12, 14, 15, 16, and 17 from the Anger Disorders Scale at Self Form (ADS@S).

[b] Factor 2 includes items 3, 4, 11, 13, and 18 from the ADS@S.

[c] Values reflect the sum of the nine self-condemnation items from the Self-Rating Subscale of the Attitudes and Beliefs Scale (SR-ABS-2).

[d] Values reflect the sum of the nine reverse-scored self-acceptance items from the SR-ABS-2.

ADHD Symptom Severity and Self-Anger

A simple linear regression was performed to examine the association between ADHD symptom severity and self-anger. In this model, the ADS@S score was regressed on the ADHD symptom severity score. ADHD symptom severity explained 40.9% of the variance in self-anger ($R = .64$, $R^2 = .41$). The analysis demonstrated that the main effect of ADHD symptom severity on self-anger was unlikely to be zero, $\Delta F(1, 422) = 291.48$, $p < .001$. The results showed that ADHD symptom severity predicts self-anger in the sample population. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(423) = 17.07$, $p < .001$. Therefore, we could consider the results from the Pearson's correlation matrix in our analysis. The Pearson's correlation of .64 indicated a reasonably strong positive correlation between ADHD symptom severity and self-anger ($r = .64$, $p < .001$). This supports the hypothesis that as ADHD symptom severity increases, self-anger also increases.

ADHD Symptom Severity and Anger Rumination

A simple linear regression was performed to examine the association between ADHD symptom severity and anger rumination. In this model, the ARS score was regressed on the ADHD symptom severity score. ADHD symptom severity explained 47.8% of the variance in anger rumination ($R = .69$, $R^2 = .48$). The analysis demonstrated

that the main effect of ADHD symptom severity on anger rumination was unlikely to be zero, $\Delta F(1, 418) = 382.35$, $p < .001$. The results showed that ADHD symptom severity predicts anger rumination in the sample population. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(419) = 19.55$, $p < .001$. Therefore, we can consider the results from the Pearson's correlation matrix in our analysis. The Pearson's correlation of .69 indicated a reasonably strong positive correlation between ADHD symptom severity and anger rumination ($r = .69$, $p < .001$). This supports the hypothesis that as ADHD symptom severity increases, anger rumination also increases.

ADHD Symptom Severity and Depression

A simple linear regression was performed to examine the association between ADHD symptom severity and depression. In this model, the PHQ-9 score was regressed on the ADHD symptom severity score. ADHD symptom severity explained 47.5% of the variance in depression ($R = .69$, $R^2 = .48$). The analysis demonstrated that the main effect of ADHD symptom severity on depression was unlikely to be zero, $\Delta F(1, 412) = 372.61$, $p < .001$. The results showed that ADHD symptom severity predicts depression in the sample population. The *t*-test indicated a positive difference between the sample data and the null hypothesis, $t(413) = 19.30$, $p < .001$. Therefore, we can consider the results from the Pearson's correlation matrix in our analysis. The Pearson's correlation of .69 indicates a reasonably strong positive correlation between ADHD symptom severity and depression ($r = .69$, $p < .001$). This supports the hypothesis that as ADHD symptom severity increases, depression also increases.

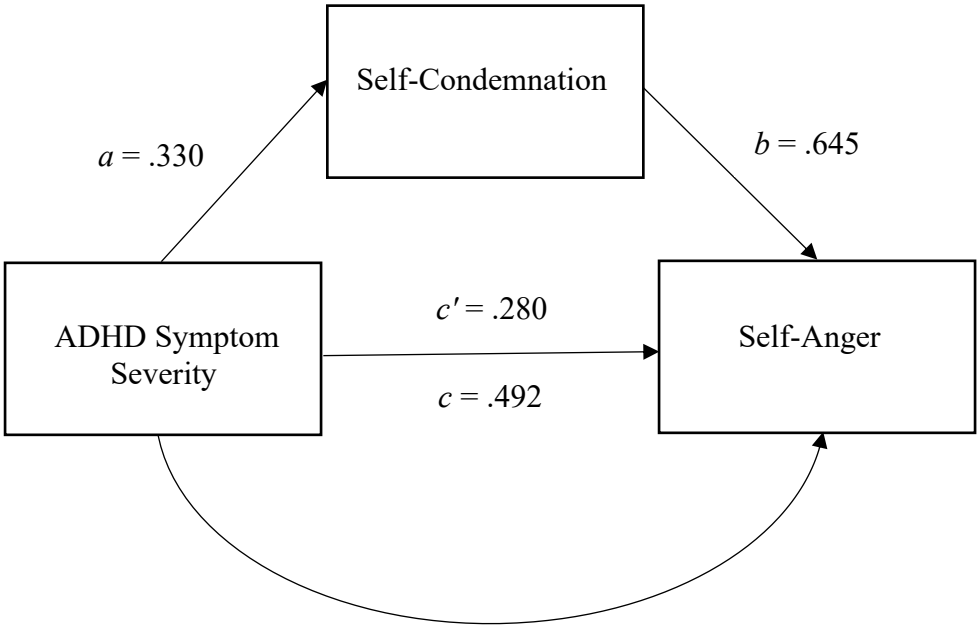
Mediation Analyses

Two mediation analyses were performed to quantify the extent to which ADHD symptom severity is associated with self-anger indirectly through self-condemnation and anger rumination.

The outcome variable for the first analysis was self-anger. The predictor variable was ADHD symptom severity, and the mediator variable was self-condemnation. The total effect (*c*) of ADHD symptom severity on self-anger was unlikely to be zero because zero was excluded from the 95% confidence interval ($\beta = .492$, $p < .001$, 95% CI [0.44, 0.55]). When self-condemnation entered the model, the direct effect (*c'*) of ADHD symptom severity on self-anger was also unlikely to be zero ($\beta = .280$, $p < .001$, 95% CI [0.22, 0.34]). The effects between ADHD symptom severity and self-condemnation (*a*; $\beta = .330$, $p < .001$, 95% CI [0.29, 0.37]) and between self-condemnation and self-anger (*b*; $\beta = .645$, $p < .001$, 95% CI [0.53, 0.76]) were both unlikely to be zero. Using the bias-corrected percentile bootstrap confidence intervals, we found that the 95% confidence interval of the indirect effect of ADHD symptom severity on self-anger via self-condemnation excluded zero ($\beta = .213$, $p < .001$, 95% CI [0.17, 0.26]); therefore, we may conclude that there is mediation in this model (see Figure 5). *c* was larger than *c'*, meeting one of the assumptions of mediation. Furthermore, because *c'* still existed once self-condemnation entered the model, although in smaller magnitude, we can conclude that self-condemnation only partially mediates between the predictor and outcome variables. In sum, higher ADHD symptom severity leads to more self-condemnation, and more self-condemnation leads to more self-anger.

Figure 5

Path Model Demonstrating the Relationships Between ADHD Symptom Severity, Self-Condemnation, and Self-Anger



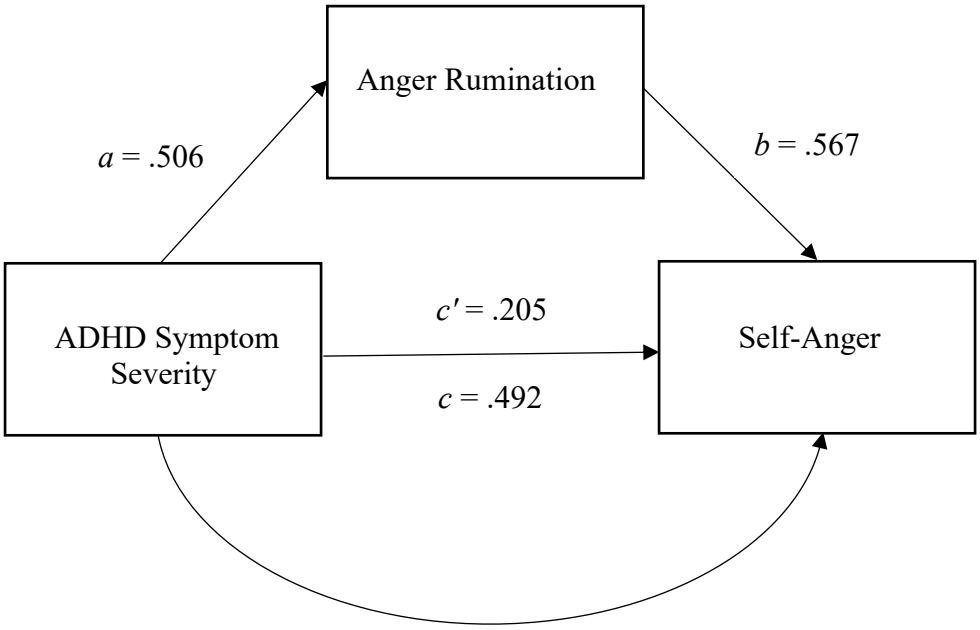
Note. All the regression coefficients were significant at the $p < .001$ level. The path coefficients (*a, b, c′*) that estimate the strength of hypothesized causal relationships are estimated by the coefficients. The total effect of ADHD symptom severity on self-anger is denoted by *c*. The direct effect of ADHD symptom severity on self-anger is denoted by *c′*. The product a × b estimates the strength of the indirect effect of ADHD symptom severity on self-anger through mediating self-condemnation.

The outcome variable for the second analysis was self-anger. The predictor variable was ADHD symptom severity, and the mediator variable was anger rumination.

The total effect (*c*) between ADHD symptom severity and self-anger was unlikely to be zero because zero was excluded from the 95% confidence interval (β = .492, p < .001, 95% CI [0.44, 0.54]). When anger rumination entered the model, the direct effect (*c'*) of ADHD symptom severity on self-anger was also unlikely to be zero (β = .205, p < .001, 95% CI [0.15, 0.26]). The effects between ADHD symptom severity and anger rumination (*a*; β = .506, p < .001, 95% CI [0.46, 0.56]) and between anger rumination and self-anger (*b*; β = .567, p < .001, 95% CI [0.49, 0.66]) were both unlikely to be zero. Using the bias-corrected percentile bootstrap confidence intervals, we found that the 95% confidence interval of the indirect effect of ADHD symptom severity on self-anger via anger rumination excluded zero (β = .287, p < .001, 95% CI [0.24, 0.35]); therefore, we may conclude that there is mediation in this model (see Figure 6). *c* was larger than *c'*, meeting one of the assumptions of mediation. Furthermore, because *c'* still existed once anger rumination entered the model, although in smaller magnitude, we can conclude that anger rumination only partially mediates between the predictor and outcome variables. In sum, higher ADHD symptom severity leads to more anger rumination, and more anger rumination leads to more self-anger.

Figure 6

Path Model Demonstrating the Relationships Between ADHD Symptom Severity, Anger Rumination, and Self-Anger



Note. All the regression coefficients were significant at the $p < .001$ level. The path coefficients (*a, b, c′*) that estimate the strength of hypothesized causal relationships are estimated by the coefficients. The total effect of ADHD symptom severity on self-anger is denoted by *c*. The direct effect of ADHD symptom severity on self-anger is denoted by *c′*. The product a × b estimates the strength of the indirect effect of ADHD symptom severity on self-anger through mediating anger rumination.

CHAPTER 6

Discussion

The purpose of this study was to examine the experiential aspects of self-anger and the relationship between ADHD symptom severity and self-anger. ADHD symptom severity was also examined in relation to anger rumination and depression to provide more context and to support our exploration of self-anger.

Self-anger was examined on two dimensions: state and trait anger. Regarding state self-anger, participants' descriptions of their self-anger episodes revealed a common theme of work and school-related problems (n = 114, 25.22%). Examples included instances of forgetting, procrastinating, failing, and missing deadlines. Meanwhile, examples of interpersonal problems were much less prevalent (n = 44, 9.74%). Based on these findings, work and school-related issues are more prevalent in self-anger than are interpersonal problems. This signifies a key difference from other-anger, which commonly involves conflict with a person one is close to (Clore & Centerbar, 2004). In addition, self-anger was reported as mostly occurring while at home (n = 241, 43.9%), further demonstrating that self-anger is commonly a private event. Most episodes of self-anger began or occurred on a Monday (n = 90, 16.4%) between noon and 3:00 PM (n = 93, 16.9%). This may be because work and school-related problems are more impactful on a Monday after coming off a weekend of no work or school. The results also show that most participants wanted to achieve a helpful or adaptive goal (n = 396, 72.2%) through their self-anger. This contrasts with other-anger during which the primary goal is to seek coercion or revenge (Nussbaum, 2016, p. 93). Furthermore, this implies that self-anger has the potential to be functional as other-anger sometimes is, such as in the case of "transition-anger" (Nussbaum, 2016, p. 35). However, slightly more people believed that

the overall outcome of the self-anger episode was somewhat negative (M = 5.55, SD = 2.13), which implies that self-anger may go awry, even when intentions were initially positive.

The simple linear regressions revealed that situations preceding the episode, cognitions during the episode, physiological symptoms, the behaviors one felt like doing, and the behaviors one performed during the episode each predicted variance in self-anger intensity. The behaviors one felt like doing predicted the most variance in self-anger intensity (38.7%). The statement "I felt like punishing myself" contributed significant unique variance beyond that of all the Behaviors Felt combined. It also aligned with one of the Behaviors Performed ("I punished myself") that contributed significant unique variance beyond all the Behaviors Performed combined. This suggests that individuals may be more likely to carry out the desire to punish themselves when feeling self-angry. The cognitions that contributed significant unique variance to self-anger intensity resembled awfulizing and self-condemning thoughts. These findings suggest that the cognitions involved in self-anger more closely resemble those of depression than those of other-anger.

Regarding physiological symptoms, tightened arms and fists and changes in breathing contributed significant unique variance to self-anger intensity. In contrast, depression is associated with physical symptoms like pain and fatigue (Jaracz et al., 2016). Therefore, the physiological symptoms involved in self-anger more closely resemble the tense, energetic arousal state of other-anger than the lethargic state of depression (Silva, 2022).

The Anger Disorders Scale at Self Form (ADS@S) was developed to examine trait self-anger. The results show that the ADS@S is a highly reliable measure of self-anger with two factors: anger-in and anger-out. More items loaded to the anger-in factor, indicating that the measure is skewed toward anger-in. A variable was created using the five items that correlated best with the total ADS@S score. The results indicate that the five best items are also a reliable measure of self-anger. One may opt to use the five best items when measuring features of anger-in due to the strong positive correlation between the anger-in factor and the score from the five best items ($r = .94$, $p < .001$). On the other hand, one may wish to use the entire scale when measuring features of anger-out or behavioral dyscontrol because the correlation between the anger-out factor and score from the five best items ($r = .67$, $p < .001$) is weaker than the correlation between the factor and total ADS@S score ($r = .78$, $p < .001$). Depending on the construct in question, the five best items of the ADS@S may prove a useful and concise tool in psychological research.

In line with hypothesis 1, we found a reasonably strong positive correlation between ADHD symptom severity and self-anger. As ADHD symptom severity increased in the sample, self-anger also increased. This is the first study to examine the relationship between these two variables; therefore, we cannot verify our findings with previous research. However, the literature supports an association between ADHD and increased anger (Ramirez et al., 1997; Richards et al., 2006) and depressive tendencies (Sobanski, 2006). As aforementioned, we discovered that self-anger shares qualities with both other-anger and depression. Therefore, it would follow to say that ADHD is also associated with increased self-anger tendencies. ADHD has been linked to weak executive

functioning skills (Blader, 2021). ADHD symptoms and executive dysfunction likely interfere with school or work functioning, especially at higher levels. The data showed that work or school-related issues, like missing deadlines or failing to meet a goal, were the most prevalent in the self-anger episode descriptions. If adults with ADHD are more likely to experience work or school-related problems resulting from their symptoms, these individuals may be more likely to experience self-anger as a result. Considering the prevalence of emotional dysregulation in ADHD (Blader, 2021), adults with ADHD may struggle to regulate and cope in the face of self-anger, leading to longer episode duration or higher episode intensity. The results highlight the value of treatment for those with higher ADHD symptom severity as reduced symptom severity may relieve self-anger tendencies and severity.

The mediation analyses provided more clarity on the pathways connecting ADHD symptom severity and self-anger. The results support hypothesis 4 in that both anger rumination and self-condemnation partially mediate between ADHD symptom severity and self-anger. Anger rumination was a slightly stronger mediator than self-condemnation, but not significantly so. Still, this may indicate that the cognitive process of thinking about and focusing on one's anger participates in the process of self-anger more than damning beliefs about oneself. Regardless, self-condemnation's involvement in this pathway coincides with our conceptualization of self-anger as having features of depression in addition to features of other-anger.

The results indicate a reasonably strong positive correlation between ADHD symptom severity and anger rumination. This supports hypothesis 2, which proposed that as ADHD symptom severity increases, anger rumination also increases. This aligns with

previous research indicating a positive association between ADHD and anger (Ramirez et al., 1997; Richards et al., 2006). However, previous research has not examined the relationship between ADHD and anger rumination specifically. Increased anger rumination in those with ADHD may be a product of increased emotional dysregulation or maladaptive coping skills. The findings offer support to the argument that the diagnostic criteria for ADHD should include an emotional dysregulation classifier or symptom. The inclusion of this classifier would help to focus the treatment of those with ADHD earlier in the process rather than having to collect more information through a lengthy intake or repeated visits with a clinician.

The results support hypothesis 3 in that there was a reasonably strong positive correlation between ADHD symptom severity and depression. This aligns with previous research indicating a positive association between ADHD and depression in both children and adults (Kitchens et al., 1999; Sobanski, 2006). Children with ADHD face many risk factors for depression, including maladaptive coping skills (Mayer et al., 2022), stigma, and interpersonal problems with peers and family (Meza et al., 2019; Whalen et al., 2009). It is during these early years that negative core beliefs about the self may start to develop. These childhood problems often carry over to adulthood without proper support, which may explain the high prevalence of MDD in adults with ADHD (Fischer et al., 2007; Sobanski, 2006). Although treating ADHD symptoms exclusively may reduce depressive symptoms, it is advisable to target the thoughts and beliefs underlying the depression. ADHD is a neurodevelopmental disorder and depression is a mental health disorder; successful treatment must focus on the processes and symptoms of both.

Limitations and Future Directions

The sample composition posed limitations to the current study. Despite efforts to recruit older adult participants to capture a wider age span, the sample was skewed toward young adults. The largest number of participants accessed the survey through Reddit (n = 159), of which over half of users are between ages 18 and 29 (Castillo, 2023). 152 participants were recruited through the St. John's University SONA system, which explains the large proportion of young adult college students in the sample. In addition, the sample was highly skewed toward White females, thus the sample was unrepresentative of the larger population. A more diverse sample could enable additional analyses of self-anger as it relates to age, gender, and racial identity.

Another limitation of the study was the survey completion rate. Although 549 people attempted the survey, only 412 (75%) completed it. We decided to use the available data from participants who completed any portion of the survey; however, the quality of their responses may have been compromised. Participant feedback after survey completion indicated that the survey was lengthy and tedious at times. These factors may have made it especially challenging for those with ADHD to focus on and complete the survey. One study found that respondents think that online surveys should ideally be between 10 and 15 minutes (Revilla & Höhne, 2020). The current study was projected to take between 20 and 30 minutes; therefore, efforts to condense this survey are needed. One way in which the survey can be shortened is by substituting the full ADS@S with the five best items, which were highly reliable in assessing self-anger. Future researchers may wish to analyze the five best items from the other measures that were administered to determine if they would be similarly reliable in measuring their respective variables.

The lack of prior research studies on this topic posed a challenge to the current study as there were no validated measures of self-anger. Therefore, we constructed the Assessment of Self-Anger Episode and adapted the Anger Disorders Scale Short Form to our study's needs. The ADS@S had excellent internal consistency, which means it may be a useful tool in future studies of self-anger. The psychometric properties of the Assessment of Self-Anger Episode were not examined because the purpose of this study was to analyze the results related to the characteristics of self-anger, not to create a measure. However, future studies may seek to validate a measure of state self-anger to standardize research on this topic.

The study's reliance on self-reported data is another drawback of the study. Self-reports are amongst the easiest methods of data collection; however, self-reported data can be easily biased or skewed (Gnambs & Kaspar, 2015). In the current study, participants may have downplayed their experience of self-anger due to feelings of discomfort. For this reason, the electronic consent form clarified the sensitive nature of the questions so that individuals were aware of this risk prior to participation. However, Gnambs and Kaspar (2015) found that online surveys were associated with increased self-reporting of socially inappropriate behaviors compared to paper surveys. Therefore, our online survey method may have increased participants' comfort about reporting on intense episodes of self-anger. Regardless, future researchers may wish to consider ways to make the survey more palatable while obtaining the necessary information to study the topic of self-anger.

The findings yielded a preliminary conceptualization of self-anger as bearing resemblance to other-anger and depression. Future research should further examine the

differences between these emotions to solidify our understanding of self-anger. Specifically, a measure of brooding rumination may help to differentiate between self-anger and depression as varying degrees of rumination may be associated with each. For example, we may find that self-anger is associated with only mild rumination. When self-anger becomes severe and persistent, rumination tendencies may increase to moderate or high levels that are more characteristic of depression. Measures of shame or guilt may also prove useful considering self-anger's similarities to these negative self-evaluative emotions. Regarding the Assessment of Self-Anger Episode, it is essential that the prompts and questions are clear so that participants accurately reflect on an instance of self-anger. Despite the definition and examples provided at the beginning of the questionnaire, many written responses seemed to describe instances of other-anger. This suggests uncertainty or confusion when asked to differentiate self-anger from similar emotions. It may be helpful to administer a brief comprehension check in which examples of other-anger and self-anger are presented and the participant must select which emotion term best fits each scenario. Accurate selections can then serve as a criterion to participate in the remainder of the survey. However, this approach may exclude individuals with language differences or comprehension deficits. Future researchers must make efforts to be inclusive while also ascertaining that the survey is accurately measuring the construct in question.

CHAPTER 7

Implications for the Practice of School Psychology

Although this study used an adult sample, the findings bear implications for school psychologists working with children, particularly those with neurodevelopmental or mental health disorders. Considering the subtle differences between self-anger, other-anger, and depression, clinicians and educators may consider introducing the unique concept of self-anger in social-emotional learning (SEL) curricula or counseling lessons. Increased awareness and understanding of their emotions may help children identify triggers for self-anger and develop more effective coping strategies. We found common themes of work and school-related issues in our conceptualization of self-anger. If the same themes hold true for children, school psychologists are in a prime position to directly intervene in incidents of self-anger that relate to the school setting.

This study found positive associations between ADHD symptom severity and self-anger, depression, and anger rumination. This aligns with the literature which states that many children with ADHD experience emotional dysregulation and comorbid depression (Blader, 2021; Kitchens et al., 1999). Therefore, school psychologists should strive to support the mental health of children with ADHD by reducing their risk factors and increasing protective factors. Considering the commonality of executive function weaknesses in ADHD (Nyman et al., 2010), children with ADHD may benefit from explicit instruction and modeling of executive functioning skills to lessen the frequency or types of incidents that may lead to self-anger. For example, a school psychologist could teach organizational skills to reduce the likelihood of the child losing materials or forgetting homework assignments. Children with ADHD may also benefit from strategies to bolster their sense of worth or social skills training to improve their peer relationships.

Clinicians may use and expand upon this study's conceptualization of self-anger to assess and treat those experiencing negative outcomes from self-anger, including those with ADHD. Moreover, school psychologists can intervene and support the emotional development of children with ADHD or emotional dysregulation concerns to reduce the prevalence of self-anger tendencies in those who are the most susceptible. Early prevention and intervention are essential to thwart the development of maladaptive self-anger and the problems that come with it in adulthood.

APPENDIX A

Recruitment Listing

APPENDIX B

Consent Form

Statement of Research Purpose: You have been invited to take part in an academic study to learn more about the experience of anger toward the self and its relationship to Attention-Deficit/Hyperactivity (ADHD) symptoms.

Principal Investigator: Dina Cottone, Ed.S., Psychology Doctoral Candidate, St. Johns College of Arts and Sciences, St. John's University

Faculty Advisor: Dr. Raymond DiGiuseppe, Ph.D., ABPP, Professor of Psychology, St. John's College of Arts and Sciences, St. John's University

Research Activities: If you agree to participate in this study, you will be asked to complete several online surveys, including a demographic form and questionnaires about your emotional experiences, thoughts, attitudes, and psychological symptoms.

Duration: These questionnaires will be accessible through a secure online survey system and will take approximately 20-30 minutes to complete. Participation in this study is voluntary. You may refuse to participate or withdraw at any time without penalty.

Risks: Although every effort will be made to prevent it, you may find the sensitive nature of some of the questions upsetting. In that event, please contact the investigator at dina.cottone10@my.stjohns.edu for a referral to a counselor with whom you may discuss your feelings.

Benefits: Although you will receive no direct benefits, this research may help the investigator better understand anger at the self to inform the treatment of those experiencing negative outcomes from self-anger.

Incentives: If you are participating through Amazon Mechanical Turk (MTurk) or Prime Panels, you will receive a $2.75 credit on your account after completion of this survey. If you are participating through the St. John's University SONA system, you will receive 0.5 hour of credit towards your course requirement after completion of this survey. However, if you withdraw before the end of the study, no payment or credit will be given.

Your Privacy and Data Security: All information collected from this online survey will be kept confidential to the extent allowed by law. Your anonymity will be ensured, as you will not be asked to identify yourself by name or other means at any point on the survey questionnaires. Surveys will instead be identified through assignment of confidential numerical codes. Data will be password-protected and secured for three years, after which time it will be destroyed.

Contact Information: If there is anything about the study or your participation that is unclear or that you do not understand, if you have questions, or if you wish to report a research-related problem, you may contact the principal investigator, Dina Cottone, at dina.cottone10@my.stjohns.edu. You may also contact the faculty mentor, Dr. Raymond DiGiuseppe, at digiuser@stjohns.edu.

For questions about your rights as a research participant, you may contact Dr. Raymond DiGiuseppe, chair of the St. John's University Institutional Review Board, at digiuser@stjohns.edu or 718-990-1955. You may also contact Marie Nitopi, IRB Coordinator, at nitopim@stjohns.edu or 718-990-1440.

Statement of Consent: By clicking the "Begin" button below, you are acknowledging and agreeing to the following:

- I have read the above information and understand the nature of the study.
- I am at least 18 years old.
- I understand that my participation is voluntary and that I may discontinue at any time without repercussion.
- I willingly and freely agree to participate in this study.

Prior to clicking "Begin," please consider saving or printing this page for your own records, as no signature is required to indicate your consent. You can save this form as a pdf by choosing file, print, and changing the print choice to "save as a pdf." You may also choose file followed by print.

By clicking "Begin" you will be directed to the first page of the survey. If you do not wish to participate in the study, you may exit this page now or at any point during your completion of the survey.

Thank you. Your consideration to participating in our study is greatly appreciated.

APPENDIX C

Demographics Survey

Please enter your age in years.

_____

What is your preferred gender?

- ○ Male
- ○ Female
- ○ Non-binary / third gender
- ○ Transgender male
- ○ Transgender female
- ○ Other _____
- ○ Prefer not to say

What is your racial identity? (Select one or more)

- ☐ African American, of African Descent, African, of Caribbean descent, or Black
- ☐ East Asian, South Asian, or Asian American (e.g., Chinese, Japanese, Korean, Pakistani)
- ☐ Caucasian, White, of European descent, or European (including Spanish)
- ☐ Hispanic, Latino, Latina, or Latinx (e.g., Cuban American, Mexican American, Puerto Rican
- ☐ Middle Eastern (e.g., Iranian, Egyptian)

- [ ] Native American (e.g., Dakota, Cherokee) or Alaskan Native
- [ ] Native Hawaiian or another Pacific Islander (e.g., Samoan, Papuan, Tahitian)
- [ ] Other _____
- [ ] Prefer not to say

What is your marital status?

- ○ Divorced / Separated
- ○ Living separately but in a romantic relationship
- ○ Living with a domestic / romantic partner
- ○ Married
- ○ Single (never married)
- ○ Widowed
- ○ Other _____
- ○ Prefer not to say

What is your highest level of education?

- ○ No High School
- ○ Some High School
- ○ GED
- ○ High School Diploma
- ○ Some College

- ○ Junior College / Associate's Degree
- ○ College Degree / Bachelor's Degree
- ○ Master's Degree
- ○ Doctoral, Law, or Professional Degree
- ○ Other _____
- ○ Prefer not to say

Please enter your current occupation.

_____

Are you currently receiving psychotherapy or counseling? (Select one or more)

- ☐ Yes, individually
- ☐ Yes, in a group
- ☐ Yes, as a couple
- ☐ No
- ☐ Prefer not to say

Are you currently in a drug or alcohol treatment program?

- ○ Yes
- ○ No
- ○ Prefer not to say

Are you currently taking psychotropic medication (e.g., antidepressants, mood stabilizers) for emotional or behavioral problems?

- ○ Yes
- ○ No
- ○ Prefer not to say

Has your physician, employer, school, or clergy recommended that you seek counseling for anger-related problems?

- ○ Yes
- ○ No
- ○ Prefer not to say

Has your physician, employer, school, or clergy recommended that you seek counseling for depression-related problems?

- ○ Yes
- ○ No
- ○ Prefer not to say

Has a medical or mental health professional suggested medication to help you cope with feelings of anger?

- ○ Yes
- ○ No
- ○ Prefer not to say

Has a medical or mental health professional suggested medication to help you cope with feelings of depression?

- ○ Yes
- ○ No
- ○ Prefer not to say

Have you ever received a diagnosis of Attention-Deficit Disorder (ADD) or Attention-Deficit/Hyperactivity Disorder (ADHD) from a medical or mental health professional?

- ○ Yes
- ○ No
- ○ Unsure

Which subtype/presentation of ADD/ADHD were you diagnosed with?

- ○ Predominantly Inattentive
- ○ Predominantly Hyperactive / Impulsive
- ○ Combined
- ○ Unsure

Have you ever suspected that you may meet diagnostic criteria for ADD/ADHD?

- ○ Definitely not
- ○ Probably not
- ○ Might or might not
- ○ Probably yes
- ○ Definitely yes

Have you ever been prescribed medication to treat hyperactivity and/or inattention?

- ○ Yes
- ○ No
- ○ Unsure

APPENDIX D

Assessment of Self-Anger Episode

When people are depressed, they feel unmotivated, lack energy, condemn themselves for their behaviors and traits, or condemn themselves for feeling sad and worthless. When people are angry with another person or about an event, they have strong and active feelings of displeasure against someone or something. We are trying to discover how people feel, think, and behave when they are angry at themselves.

Try to recall times when you became angry at yourself during the past two weeks. Think of the differences between the situations in which you became angry at others versus those in which you became angry at yourself. For example, you might become angry at someone for canceling plans at the last minute, which would not lead you to feel angry at yourself. However, you might become angry at yourself if you forgot the plans you arranged, which would not lead you to feel angry toward anyone else. This questionnaire asks about the experience of **anger at yourself**.

Think of your most intense experience of **anger at yourself** during the past **two weeks**. What did you do? What did you feel at that moment? What were your thoughts? (If you were not angry at yourself within the past two weeks, please think of your most recent episode of anger at yourself).

Briefly describe the experience in which you were the **angriest with yourself** during the past two weeks.

_____

_____

Where did your anger at yourself occur (or begin)?

- ○ At home
- ○ At school
- ○ At work
- ○ At a social engagement
- ○ While driving
- ○ Other _____

What day of the week did your anger at yourself occur?

- ○ Monday
- ○ Tuesday
- ○ Wednesday
- ○ Thursday
- ○ Friday
- ○ Saturday
- ○ Sunday
- ○ I don't remember

What time of day did your anger at yourself occur?

- ○ Early in the morning
- ○ Between 6 AM and 9 AM
- ○ Between 9 AM and noon
- ○ Between noon and 3 PM
- ○ Between 3 PM and 6 PM
- ○ Between 6 PM and 9 PM
- ○ Between 9 PM and midnight
- ○ In the middle of the night
- ○ I don't remember

How would you describe your mood **just before** you became angry at yourself? (Select one or more)

- [ ] Happy
- [ ] Engaged in task
- [ ] Sad
- [ ] Angry
- [ ] Calm
- [ ] Anxious
- [ ] Bored
- [ ] Irritated / annoyed
- [ ] Confident
- [ ] Guilty
- [ ] Ashamed
- [ ] Jealous
- [ ] Neutral

How well do each of the following statements match what **led you** to feel angry with yourself?

	Not at all	A little	Moderately	Very much
I doubted myself.	○	○	○	○
I got frustrated about things	○	○	○	○

occurring in my life.				
I embarrassed myself.	○	○	○	○
I forgot about plans I made with friends/family.	○	○	○	○
I did not finish a project/assignment on time.	○	○	○	○
I am unmotivated.	○	○	○	○
I did poorly on a project or task.	○	○	○	○
A friend or family member criticized me.	○	○	○	○
My boss or supervisor criticized me.	○	○	○	○
A friend or family member disappointed me.	○	○	○	○
I made the same mistake again.	○	○	○	○
I lost something important.	○	○	○	○
I arrived late to a social function.	○	○	○	○

How well do each of the following statements match what **you thought** when you were angry with yourself?

	Not at all	A little	Moderately	Very much
I am responsible for making the mistake.	○	○	○	○
It was an accident, but I should have been able to avoid it.	○	○	○	○
It was an accident, and it was beyond my control.	○	○	○	○
I should not have done the thing that got me angry.	○	○	○	○
I am responsible for the bad event.	○	○	○	○
I can’t stand making such mistakes.	○	○	○	○
I am a worthless person for making such a mistake.	○	○	○	○
I always make such mistakes.	○	○	○	○
Making this mistake was awful and terrible.	○	○	○	○

Being angry with myself will not help me.	○	○	○	○
I should have known better.	○	○	○	○
I am a disappointment to myself and others.	○	○	○	○
I will never get better at preventing such mistakes.	○	○	○	○
I will do better next time.	○	○	○	○

Below are several things that you may have **felt in your body** when you became angry with yourself. Read each statement and select the choice that best matches your experience.

	Not at all	A little	Moderately	Very much
Felt warmer	○	○	○	○
Felt a change in breathing	○	○	○	○
Cried	○	○	○	○
Felt arms and fists tighten	○	○	○	○
Felt your heartbeat faster or louder	○	○	○	○
Felt shaky	○	○	○	○

Felt jaw clench	○	○	○	○

Below are several things that you may have felt like doing when you became angry with yourself. Read each statement and select the choice that best matches how much you **felt like doing** each item.

	Not at all	A little	Moderately	Very much
I felt like hitting myself.	○	○	○	○
I felt like cursing.	○	○	○	○
I felt like lying in bed.	○	○	○	○
I felt like hitting, slamming, or throwing something (inanimate object).	○	○	○	○
I felt like being alone and not speaking to anyone.	○	○	○	○
I felt like acting the opposite of my angry feelings, such as being friendly, joking, etc.	○	○	○	○
I felt like saying bad things about myself.	○	○	○	○

I felt like doing things to calm myself, such as taking slow deep breaths, counting, etc.	○	○	○	○
I felt like distracting myself with TV shows, social media, video games, etc.	○	○	○	○
I felt like yelling or shouting.	○	○	○	○
I felt like punishing myself.	○	○	○	○

Read each statement and answer YES or NO to show if this was something you **actually did** when you became angry with yourself.

	Yes	No
I hit myself.	○	○
I cursed.	○	○
I lay in bed.	○	○
I hit, slammed, or threw something (inanimate object).	○	○
I spent time alone and did not speak to anyone.	○	○

I acted the opposite of my angry feelings, such as being friendly, joking, etc.	○	○
I said bad things about myself.	○	○
I did things to calm myself, such as taking slow deep breaths, counting, etc.	○	○
I distracted myself with TV shows, social media, video games, etc.	○	○
I yelled or shouted.	○	○
I punished myself.	○	○

To what extent did you experience other feelings **shortly after** the incident occurred?

	Not at all	A little	Moderately	Very much
I felt irritated or annoyed.	○	○	○	○
I felt unhappy or gloomy.	○	○	○	○
I felt embarrassed.	○	○	○	○
I felt anxious, jittery, or nervous.	○	○	○	○
I felt calm.	○	○	○	○
I felt regret.	○	○	○	○
I felt lonely.	○	○	○	○

I felt depressed.	○	○	○	○
I felt disappointed in myself.	○	○	○	○
I felt guilty.	○	○	○	○
I felt angrier with myself.	○	○	○	○
I felt shame.	○	○	○	○
I felt hopeless.	○	○	○	○
I felt sad.	○	○	○	○
I felt angry with someone or something else.	○	○	○	○
I felt disgusted with myself.	○	○	○	○
I felt despair.	○	○	○	○
I felt fear.	○	○	○	○
I felt numb.	○	○	○	○

For the following questions, select a number from 1 to 10 that best matches your experience.

How **intense** was the anger in the incident you described above?

Very mild									Very intense
1	2	3	4	5	6	7	8	9	10

Sometimes, people report becoming "overwhelmed" or "overcome" by anger with themselves. How able were you to control the **outward** expression of your anger with yourself? This item reflects what you **did and said**.

Not at all in control — Completely in control

1 2 3 4 5 6 7 8 9 10

How able were you to control the **inward** experience of your anger with yourself? This item reflects what you **thought and felt**.

Not at all in control — Completely in control

1 2 3 4 5 6 7 8 9 10

How long were you angry with yourself?

- ○ Less than 5 minutes
- ○ About 5-10 minutes

- ○ 10 minutes to ½ hour
- ○ ½ hour to 1 hour
- ○ 1-2 hours
- ○ ½ day
- ○ 1 day
- ○ 1-2 days
- ○ More than 2 days
- ○ 1 week
- ○ More than a week

Which of the following was the **most important goal** you wished to accomplish when you were angry at yourself?

- ○ To get rid of my tense feeling
- ○ To increase my understanding of what happened so I could avoid mistakes
- ○ To help change my behavior or act more positively
- ○ To punish myself so I would not do bad or dumb things again

Overall, to what extent did you accomplish the goal checked as most important in the previous question?

- ○ Not at all
- ○ A little
- ○ Moderately

○ Very much

Considering the event that led to your anger at yourself, the extent of your feelings, and everything that happened, select a number from 1 to 10 to rate the **overall outcome** of this episode of anger at yourself.

Positive Negative

1 2 3 4 5 6 7 8 9 10

APPENDIX E

Attention-Deficit/Hyperactivity Disorder (ADHD) Symptom Inventory

Please rate yourself on each of the criteria shown using the scale on the right side of the page. As you respond to each item, select the choice that best describes how you have felt and conducted yourself over the past 6 months.

	Never	Rarely	Sometimes	Often	Very Often
How often do you have difficulty concentrating on what people are saying to you even when they are speaking to you directly?	○	○	○	○	○
How often do you leave your seat in meetings or other situations in which you are expected to remain seated?	○	○	○	○	○
How often do you have difficulty unwinding and relaxing when you have time to yourself?	○	○	○	○	○
When you're in a conversation, how often do you find yourself finishing the sentences of the people you are talking to before they can finish them themselves?	○	○	○	○	○
How often do you put things off until the last minute?	○	○	○	○	○
How often do you depend on others to keep your life in order and attend to details?	○	○	○	○	○
How often do you make careless mistakes when you have to work on a boring or difficult project?	○	○	○	○	○
How often do you have difficulty keeping your attention when you are doing boring or repetitive work?	○	○	○	○	○

How often do you have difficulty getting things in order when you have to do a task that requires organization?	○	○	○	○	○
How often do you misplace or have difficulty finding things at home or at work?	○	○	○	○	○
How often are you distracted by activity or noise around you?	○	○	○	○	○
How often do you have problems remembering appointments or obligations?	○	○	○	○	○
How often do you feel restless or fidgety?	○	○	○	○	○
When you have a task that requires a lot of thought, how often do you avoid or delay getting started?	○	○	○	○	○
How often do you find yourself talking too much when you are in social situations?	○	○	○	○	○
How often do you feel overly active and compelled to do things, like you were driven by a motor?	○	○	○	○	○
How often do you have difficulty waiting your turn in situations when turn taking is required?	○	○	○	○	○
How often do you interrupt others when they are busy?	○	○	○	○	○
How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?	○	○	○	○	○

How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?	○	○	○	○	○

APPENDIX F

Anger Disorders Scale at Self Form (ADS@S)

For each statement below, select the response that best describes you.

My anger toward myself has been a problem for me…

- ○ a week or less, or not at all
- ○ a month or less
- ○ about three months
- ○ about six months
- ○ a year or more

I have been so angry at myself that I became aware of my heart racing...

- ○ never or rarely
- ○ about once a month
- ○ about once a week
- ○ about several times a week
- ○ almost every day

I get angry at myself and lose control of my behavior...

- ○ never or rarely
- ○ about once a month
- ○ about once a week
- ○ about several times a week

○ almost every day

When I get angry, I yell or scream at myself...

○ never or rarely

○ about once a month

○ about once a week

○ about several times a week

○ almost every day

When I feel angry at myself, I boil inside, do not show it, and keep things in...

○ never or rarely

○ about once a month

○ about once a week

○ about several times a week

○ almost every day

I get frustrated and angry at myself about...

○ almost nothing

○ only one thing in my life

○ several things in my life

○ many things

○ almost everything

I get angry if I make myself look bad in front of others...

- ○ never
- ○ rarely
- ○ occasionally
- ○ often
- ○ always

When I get angry at myself about something, I cannot get it out of my mind...

- ○ never or rarely
- ○ about once a month
- ○ about once a week
- ○ about several times a week
- ○ almost every day

Even though I do not show it, my anger at myself usually continues for…

- ○ only a few minutes
- ○ a few hours
- ○ several days
- ○ about a week
- ○ a month or more

When I feel angry at myself, I just want to make the tension go away...

- ○ not at all
- ○ some of the time

- ○ about half of the time
- ○ most of the time
- ○ every time

When I am angry at myself, I am likely to **hit objects** out of frustration...

- ○ never or rarely
- ○ about once a month
- ○ about once a week
- ○ about several times a week
- ○ almost every day

When I am angry at myself, I am likely to curse at myself out of frustration...

- ○ never or rarely
- ○ about once a month
- ○ about once a week
- ○ about several times a week
- ○ almost every day

When I am angry at myself, I am likely to **hit myself** out of frustration...

- ○ never or rarely
- ○ about once a month
- ○ about once a week
- ○ about several times a week

○ almost every day

When I am angry at myself, I am likely to cry...

○ never or rarely

○ about once a month

○ about once a week

○ about several times a week

○ almost every day

When I am angry at myself, I condemn myself and make things harder for myself as a punishment...

○ never

○ once in my life

○ several times in my life

○ many times in my life

○ almost every day in my life

When I am angry at myself, I try not to hang out with other people (i.e., friends, family)...

○ never or rarely

○ about once a month

○ about once a week

○ about several times a week

○ almost every day

When I am angry at myself, I want to punish myself...

- ○ not at all
- ○ some of the time
- ○ about half of the time
- ○ most of the time
- ○ every time

When I am angry at myself, I have energy to yell at myself and hold myself accountable...

- ○ not at all
- ○ some of the time
- ○ about half of the time
- ○ most of the time
- ○ every time

APPENDIX G

Anger Rumination Scale (ARS)

Please read each statement and select the choice that best describes yourself and your responses to anger.

	Almost never	Sometimes	Often	Almost always
I ruminate about my past anger experiences.	○	○	○	○
I ponder about the injustices that have been done to me.	○	○	○	○
I keep thinking about events that angered me for a long time.	○	○	○	○
I have long-living fantasies of revenge after the conflict is over.	○	○	○	○
I think about certain events from a long time ago and they still make me angry.	○	○	○	○
I have difficulty forgiving people who have hurt me.	○	○	○	○
After an argument is over, I keep fighting with this person in my imagination.	○	○	○	○
Memories of being aggravated pop up into my mind before I fall asleep.	○	○	○	○
Whenever I experience anger, I keep thinking about it for a while.	○	○	○	○
I have had times when I could not stop being preoccupied with a particular conflict.	○	○	○	○
I analyze events that make me angry.	○	○	○	○
I think about the reasons people treat me badly.	○	○	○	○

I have daydreams and fantasies of a violent nature.	○	○	○	○
I re-enact the anger episode in my mind after it has happened.	○	○	○	○
I feel angry about certain things in my life.	○	○	○	○
When someone makes me angry, I can't stop thinking about how to get back at this person.	○	○	○	○
When someone provokes me, I keep wondering why this should have happened to me.	○	○	○	○
Memories of even minor annoyances bother me for a while.	○	○	○	○
When something makes me angry, I turn this matter over and over again in my mind.	○	○	○	○

APPENDIX H

Self-Rating Subscale of the Attitudes and Beliefs Scale (SR-ABS-2)

For each statement below, select the response that best describes you.

If important people dislike me, it shows what a worthless person I am.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

When I feel tense, nervous, or uncomfortable, I think it shows what a bad, worthless person I am.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

If important people dislike me, it is because I am an unlikable, bad person.

- ○ Strongly disagree
- ○ Somewhat disagree

- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

When important people dislike me, I realize that it does not reflect my worth as a person.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

When I fail at important tasks, I can accept myself entirely even if I fail.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

I am a good person and I can accept myself, even if I fail at important tasks.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree

○ Strongly agree

If I do not do well at important tasks, it makes me a worthless person.

○ Strongly disagree

○ Somewhat disagree

○ Neutral

○ Somewhat agree

○ Strongly agree

I have worth as a person even if I do not perform well at important tasks.

○ Strongly disagree

○ Somewhat disagree

○ Neutral

○ Somewhat agree

○ Strongly agree

Even when I feel tense, nervous, or uncomfortable, I know that I am just as worthwhile as other people.

○ Strongly disagree

○ Somewhat disagree

○ Neutral

○ Somewhat agree

○ Strongly agree

If I am rejected by someone I like, I can accept myself and still recognize my worth as a person.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

When I experience hassles, I believe I am a worthless person because of that.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

I believe that I would be a worthless person if I do poorly at tasks that are important to me.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

I would be a worthless person if I failed at work, school, or other activities that are important to me.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

When people I like reject me or dislike me, it is because I am a bad or worthless person.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

When I experience discomfort in my life, I tend to think that I am not a good person.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

When people whom I want to like me disapprove of me, I know I am still a worthwhile person.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

Even when my life is tough and difficult, I realize that I know I am just as good as anyone else is.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

When my life becomes uncomfortable, I realize that I am still a good person.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

APPENDIX I

Patient Health Questionnaire (PHQ-9)

Over the **past 2 weeks**, how often have you been bothered by any of the following problems? Read each item and select the best match for your experience.

	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things	○	○	○	○
Feeling down, depressed, or hopeless	○	○	○	○
Trouble falling or staying asleep, or sleeping too much	○	○	○	○
Feeling tired or having little energy	○	○	○	○
Poor appetite or overeating	○	○	○	○
Feeling bad about yourself, or that you are a failure or have let yourself/your family down	○	○	○	○
Trouble concentrating on things, such as reading the newspaper or watching television	○	○	○	○
Moving/speaking so slowly that other people could have noticed, or being so fidgety/restless that you have been moving around a lot more	○	○	○	○
Thoughts that you would be better off dead or of hurting yourself	○	○	○	○

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

- ○ Not difficult at all
- ○ Somewhat difficult
- ○ Very difficult
- ○ Extremely difficult

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