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GENDER DIFFERENCES IN PERSONALITY DYSFUNCTION AND AGGRESSION IN A SAMPLE OF AT-RISK YOUTH

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GENDER DIFFERENCES IN PERSONALITY DYSFUNCTION AND AGGRESSION IN A SAMPLE OF AT-RISK YOUTH

by

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ABSTRACT

Youth with antisocial and borderline traits in adolescence have been found more likely to commit violence and experience negative outcomes later in life. There is evidence for gender differences in the manifestations of dysfunctional personality features (antisocial and borderline traits) and functions of aggression, but little research has sought to assess unique gender differences that may help unravel the sequelae of personality dysfunction in youth. Accordingly, this exploratory study examines gender differences in associations between antisocial features, borderline features, and proactive and reactive functions of aggression in a sample of at-risk youth. Four hundred and sixty-four adolescents (Mage = 16.75 years, 84.9% male) participating in a military-style bootcamp for at-risk 16- to 18- year-olds self-reported Antisocial Features (ANT), Borderline Features (BOR), and the forms and functions of aggression. This study contributes to the literature by assessing antisocial features, borderline features, and forms and functions of aggression in this sample of at-risk youth, determining how dysfunctional personality features relate to aggression, and identifying novel gender differences in these constructs and associations among them. These findings may be useful for understanding the experiences of at-risk adolescents and identifying opportunities to disrupt negative outcomes in these youth. Limitations and further directions will be discussed herein.

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LIST OF ABBREVIATIONS

USM	The University of Southern Mississippi
PCS	Peer Conflict Scale
PAI-A	Personality Assessment Inventory-Adolescent
ANT	Antisocial Features
BOR	Borderline Features

CHAPTER I - INTRODUCTION

Youth aggression is linked to a number of negative outcomes at both the individual and systemic level, but there are various factors that may be implicated in these outcomes that remain poorly understood. Antisocial and borderline personality features are associated with a host of shared and unique negative outcomes, and accordingly, associations may be evident between antisocial and borderline features and aggression that have yet to be sufficiently parsed (e.g., Sharp & Wall, 2018). As young people make the transition into adulthood, gender differences in these constructs may also become more salient, and a targeted investigation of these gender differences may shed important light on the disparate needs of boys and girls. Given that links between dysfunctional personality and aggression may be particularly important in a critical developmental period such as adolescence and among youth with identified behavior problems, the current study seeks to examine the presence and intercorrelation of antisocial and borderline personality features and the forms and functions of aggression. This study also seeks to examine gender differences among and between these constructs in a sample of at-risk youth.

The Nature of Aggression

While adolescent aggression exacts a significant economic toll on society, this number does not comprehensively illustrate the negative impact of adolescent aggression (World Health Organization, 2015). Displaying aggression in youth and adolescence seems to impart a significant cost on various domains of individual development and functioning, as it has been associated with a host of negative outcomes including social rejection, substance misuse later in life, delinquency, greater risk for mental health

concerns, and poorer school performance (see Vitaro & Brengden, 2012 for review). There is a need for a better understanding of various factors that may co-occur, interact with, and/or precede aggression, or further, that may contextualize aggression within the course of personal development, as these investigations may help better delineate trajectories toward negative outcomes as well as identify targets for intervention.

The aggression literature distinguishes between two primary forms, overt and relational aggression. Overt aggression refers to verbally and physically aggressive behaviors directed at other individuals with the intent to harm them (e.g., hitting, kicking, threatening, insulting; Little et al., 2003). Alternatively, relational aggression, a more "indirect" form of aggression, refers to acts that seek to damage another person by targeting their inclusion in a peer group (e.g., ostracism, spreading rumors, gossiping; Little et al., 2003). Significant research provides support for distinction between these forms of aggression, despite their often being at least moderately positively correlated (for review, see Little et al., 2003). The literature also supports a distinction between two functions of aggression, reactive and proactive aggression. Reactive aggression, a defensive response provoked by a perceived threat or hostile intent in one's environment, is theoretically informed by the frustration aggression hypothesis (Dodge & Coie, 1987; Fite et al., 2016). In contrast, proactive aggression, theoretically based in social learning theory, is generally considered to occur without provocation and to be instrumental, deliberate, and goal-oriented in nature (for review, see Fite et al., 2016). While proactive and reactive aggression are repeatedly found to be highly correlated, prior research also illustrates the utility of differentiating between these constructs given that they are linked to distinct theoretical underpinnings, etiological factors, behavioral and psychological

profiles, cognitive and behavioral processes, and outcomes (Fite et al., 2016; Ostrov & Houston, 2008). Given that individuals are capable of engaging in both functions of aggression (and often do, for review see Fite et al., 2016), the literature generally supports conceiving of reactive and proactive aggression as distinct dimensions, as opposed to mutually exclusive categories of aggression (Lobbestael et al., 2015).

The question of gender differences in aggression is an important one given the significant and disparate outcomes associated with the forms and functions, respectively. While many studies of aggression maintain that men and boys are more aggressive than women and girls, most extant research on aggression has investigated majority-male samples (e.g., Bettencourt & Miller, 1996; Guerra & White, 2017). Accordingly, contradictory theories and findings exist regarding the nature of aggression in women and girls (Morel, 2018; Crick & Grotpeter, 1995). Some such research has suggested that women are more likely to display indirect, relational forms of aggression in comparison to men, who are respectively more likely to display overt forms of aggression (e.g., Crick, 1995). However, other research with youth samples seems to suggest that boys typically score higher than girls on self-report measures of overt aggression yet report equal or sometimes higher relational aggression than girls (Björkqvist & Niemelä, 1992). There is also evidence of gender differences – although mixed and limited in nature -- in the functions of aggression, with some prior literature suggesting no gender difference in proactive and reactive aggression (Connor et al., 2003; Polman et al., 2007) and others arguing that males report perpetrating more of both proactive and reactive aggression (Little et al., 2003; Salmivalli & Nieminen, 2002). With consideration of these gender

differences, there is also evidence that individual differences in personality features may also contribute to and help us understand unique patterns of aggression.

Aggression and Personality Pathology

Given that young people with antisocial and borderline personality disorder symptoms are more likely to display aggression in adolescence and young adulthood than those without these traits (e.g., Gardner et al., 2015; Frick & Dantagnan, 2005; Penson et al., 2018), assessing dysfunctional personality traits in adolescence may be useful for better understanding how these traits and externalizing behaviors such as aggression may lead to negative outcomes later in life. Prior research suggests personality pathology may constitute a unique level of psychopathology that can be distinguished from other levels of psychopathology (e.g., internalizing and externalizing pathology) in its contribution to long-term functioning (Sharp & Wall, 2018) and a host of empirical studies suggest borderline personality features and antisocial personality features may predict later violence and aggression (Odgers et al., 2008; Penson et al., 2018; Weinstein et al., 2012). Self-reported aggression has been linked to both antisocial personality traits (e.g. Dunsieth et al., 2004; Warren et al., 2002) and borderline traits (e.g., Dougherty et al., 1999) and factors related to aggression are included in the DSM-5-TR criteria for personality disorders, such as difficulty controlling anger (Borderline Personality Disorder) and heightened aggressiveness and irritability (Antisocial Personality Disorder; APA, 2013). These compounding sources suggest a link between these personality traits and externalizing behaviors.

Borderline features have frequently been linked to reactive "hot blooded" aggression (e.g., Berenson et al., 2011; de Barros & de Padua Serafim, 2008; Gardner et al., 2012;

New et al., 2009; Ross & Babcock, 2009). Reactive aggression is also positively linked to heightened emotional reactivity, affective instability, impulsivity, and neuroticism (which have been investigated as core constructs implicated in borderline personality; e.g., Gardner et al., 2012). Some research also suggests, however, that some borderline features may also be accordant with proactive aggression (for example, attempting to manipulate others to achieve goals), or rather that reactive and proactive aggression may co-occur in people with these traits (as they often do in the same person; Gardner et al., 2012). Regarding the forms of aggression, Ostrov and Houston (2008) linked borderline PD to both functions of relational aggression; some prior research suggests that once relational aggression is considered, the link between BPD and physical aggression deteriorates (Crick, et al., 2005). Alternatively, proactive "cold-blooded" aggression is typically linked to callousness, unemotionality, lack of empathy, and patterns of delinquency and serious offending (which are often reflected in antisocial features; Guerra & White, 2017; Ostrov & Houston, 2008; Bradley et al., 2005). For example, Bezdjian and colleagues (2011) found that those with antisocial traits were more likely to engage in proactive aggression and other antisocial behaviors, and that antisocial traits were often a good predictor of later violence. However, antisocial personality traits have also been linked to self-reported reactive aggression, especially as it co-occurs with proactive aggression (Lobbestael et al., 2013; Ross & Babcock, 2009). With regard to the forms of aggression, Ostrov & Houston (2008) found that antisocial traits were positively associated with both functions of overt aggression. However, antisocial traits were positively linked to only the proactive function of relational aggression in that study. These findings highlight gaps in the literature related to associations between and among

these constructs, and further justify the examination of the forms and functions of aggression as they co-occur with antisocial and borderline features.

Gender and Personality Disorder

As young people make the transition into adulthood, personality traits may interact with socialization processes, pressures, and values to play an important role in the differential manifestation of dysfunctional behaviors such as aggression. While some research maintains that profiles of antisocial and borderline traits can be distinguished by certain trait differences, other lines of research suggest that ASPD and BPD may reflect a shared underlying form of psychopathology whose behavioral manifestation is shaped by gender *(*for review, see Paris et al., 2013). While debate still exists on this topic, a sizeable body of literature has sought to understand gender differences in personality pathology, as well as the dynamic role gender may play in the manifestation of these traits over time (e.g., Beauchaine et al., 2009; Herzhoff, 2018).

Extant literature has in majority focused on Borderline Personality Disorder as it presents in women, resulting in limited research on borderline features in men and boys. Previous clinical estimates reported that women received approximately 2/3 to 3/4 of all BPD diagnoses (Johnson et al., 2003), so the gender disparity in research may be a result of limited samples in earlier research studies, which were often composed of treatment-seeking females. Johnson and colleagues (2003) argue that key differences (e.g., differences in trauma history, comorbidities) may result in men and women presenting with different patterns in symptoms and issues. Thus, gender differences in the presentation of BPD (e.g., women initiating more self-directed self-harm behaviors; men being less help-seeking than women; men tending toward more “subsyndromal features”)

lead to a disproportionate number of women in research samples (Sansone & Sansone, 2011; Skodol & Bender, 2003; Zanarini et al., 2007). As Bjorklund (2006) details, a substantial and enduring cultural history of the disorder may also contribute to a prevalent belief that BPD characteristically manifests in a higher proportion of women than men. This cultural history may be reflected in and/or contribute to a clinician bias towards BPD diagnosis in more women than men (although such a bias has been both well-documented and disputed; e.g., Bradley et al., 2005; Sansone & Sansone, 2011). Alternatively, some research suggests that certain cultural underpinnings, such as gender differences regarding normative behavior and socialization processes, may contribute to genuine gender differences (Bjorklund, 2006; Sansone and Sansone, 2011). With consideration of these competing and compounding arguments, there is some evidence of gender differences in the borderline symptom profiles between males and females. For example, in a large inpatient sample of individuals with BPD, Barnow and colleagues (2007) found that men with BPD could be differentiated from women with BPD by their explosive temperaments and higher levels of novelty seeking. Further, some research suggests that adolescent boys who meet criteria for BPD are also more likely to have an aggressive, disruptive, and antisocial presentation compared to adolescent girls, whose presentations are more likely to reflect "traditional profiles" (that is, to align with DSM-V symptom profiles for adults; Bradley et al., 2005; Sansone & Sansone, 2011). If more males than females are likely to display antisocial features and substance misuse problems, a disproportionate number of men and boys with borderline symptoms may be represented in treatment programs and jail settings, again resulting in underrepresentation

of men and boys in borderline pathology studies (often conducted with treatment-seeking samples; Bjorklund, 2006).

Alternatively, Antisocial Personality Disorder (ASPD) is diagnosed at least three times more often in men compared to women (Alegria et al., 2013). Again, the literature's historical focus on ASPD in men and boys continues to limit our understanding of antisocial personality features as they manifest in women and girls (Charles et al., 2012). While limited, prior studies examining gender differences in antisocial traits suggest that perhaps "gender role socialization and biological gender differences might result in psychopathic traits being expressed differently by gender" (Charles et al., 2012, p. 632). Prior research suggests that women may be less likely to display more "typical" hallmarks of psychopathy like violent acts and destroying property (Goldstein et al., 1996), and instead may be more likely to display nonviolent antisocial behaviors like relational aggression and irritability (Alegria et al., 2013; Charles et al., 2012; Crick, 1995). Likewise, prior research suggests women with antisocial features may be more likely to direct antisocial behaviors toward friends, family, and acquaintances rather than strangers (Alegria et al., 2013). Women with ASPD report higher rates of victimization, lower social support, and greater overall impairment than men with ASPD, despite presenting less violent antisocial behaviors than men (Alegria et al., 2013). These findings both suggest unique associations in personality dysfunction and aggression may be present between men and women and provide real-world justification for additional research, which could lay the groundwork for targeted interventions for female aggression in youth.

Adolescence, Gender, and Personality: Gaps in the Literature

Given the significant burden antisocial and borderline features and aggression can place on the adolescents who experience these issues, their families, and the mental health service networks that seek to support them, there is a significant need for further investigation into how adolescent personality pathology may be linked to adolescent aggression. Prior research has called for further examination of the forms and functions of aggression respective to personality pathology during salient developmental periods such as adolescence, which is a critical time marked by significant changes in personality, identity formation, and risk-taking behaviors (Ostrov & Houston, 2008). Research suggests that manifestations of personality pathology and aggression are likely to increase during adolescence as youth face a number of new and unique challenges that may contribute to burgeoning mental health concerns, but also that adolescence may also be a key timepoint for intervention given that these traits and behaviors may be more malleable during this sensitive developmental period (Lenzenweger & Castro, 2005; Ostrov & Houston, 2008; Sharp & De Clercq, 2020; Shiner, 2009; Westen & Chang, 2000). Critically, gender differences may also be more salient during adolescence as pressure to conform to gender norms intensifies during this time (Gender intensification theory; Hill et al., 1983).

Developmental trajectories of personality disorders are poorly understood, but various sociological factors have been implicated in the development of antisocial and borderline features as well as aggressive behaviors. It has been suggested that gender norms may influence presentations of psychopathology (Socialization theory; Herzhoff 2018; Marmorstein, 2007), as young people may internalize messages that socialize them

toward certain patterns of traits and behaviors (Paris, 1998; Skabeikyte & Barkauskiene, 2021; Weldon, 2021). Gender norms may also be implicated in disparate patterns of emotion regulation, negative relationships, and psychosocial adjustment in girls and boys (Charles et al., 2012; Herzhoff, 2018), and further, may contribute to gender differences in personality and behavior. Indeed, the limited body of research investigating gender differences in specific personality pathology features and aggression suggest gender differences may be evident, but that further investigation is needed to parse associations (e.g., Ostrov & Houston, 2008; Ross & Babcock, 2009). For example, in a sample of adjudicated youth, Stickle and colleagues (2012) found that, for both boys and girls, high levels of combined proactive and reactive aggression were associated with the highest levels of impulsivity, overall aggression, and callous-unemotional traits. However, girls in this sample also showed evidence of higher emotionality than boys, including higher rates of overall negative affect, anxiety, empathy, and distress about social provocations (Stickle et al., 2012). Mancke and colleagues (2015) found that men with borderline traits and women with borderline traits had structural differences in grey matter volume in specific locations of the brain, and further, displayed different patterns of striatal activity during an aggression-induction task; these findings appear to draw a unique link between impulsivity and aggression in men, not women, with BPD.

There is respectively little research on personality pathology in young people and adolescents compared to adults. While a number of factors may contribute to this disparity, one substantial factor is a hesitance on the part of many mental health professionals to diagnose personality disorders in adolescence. Some clinicians believe personality is too unstable and evolving during this time, are dissatisfied with diagnostic

classification systems and discrepancies in nomenclature, and/or are hesitant to assign a potentially stigmatizing diagnosis (e.g., Beauchaine et al., 2009; Miller et al., 2008; Sharp & De Clercq, 2020; Westen & Chang, 2000). However, much recent research challenges these concerns and argues for the utility of examining these traits in adolescence (e.g., Ostrov & Houston, 2008; Sharp & Wall, 2018). Such research is especially relevant given that some studies have posited that the proportion of adolescents who meet criteria for personality disorders (e.g., BPD) may mirror rates found among adults (e.g., Sharp & Wall, 2018). In light of these considerations, it may be especially worthwhile to consider various traits that may precede the onset of personality disorder, such as those gauged in the ANT and BOR scales.

Our understanding of links among aggression, personality pathology, and gender are also likely limited by some additional methodological factors. As previously described, there are sizeable gaps in the literature informing our understanding of certain domains of personality pathology and aggression among and between boys and girls (for example, our understanding of aggression in youth is dependent on samples that have been majority boys). Certain associations between these constructs may be obscured in studies that utilize community samples of youth, as aggression is reported less in these samples overall. Alternatively, these associations may be more salient in samples that tend to report more elevated pathologies and externalizing behaviors, such as samples of youth at-risk for psychopathology and negative outcomes later in life. Research on gender differences in samples of youth with more elevated pathologies (e.g., detained youth, at-risk youth) is also often impossible or improbable due to insufficient samples of girls in these settings (Charles et al., 2012).

The literature has also long suggested a complicated relationship between and among antisocial and borderline personality features. Antisocial and borderline traits have significant overlap in symptoms and features (e.g., heightened disinhibition, impulsivity, and antagonism) as well as risk factors (e.g., genetic, psychosocial, environmental; for review, see Beauchaine et al., 2009; Paris et al., 2013). Antisocial and borderline features have also been repeatedly linked to some shared outcomes, such as elevated risk for other mental illnesses, substance use, suicide, and interpersonal problems (Beauchaine et al., 2009; Shorey et al., 2014). Further, a good body of the aforementioned literature seems to implicate key traits in the link between personality disorder and aggression. For example, Raine and colleagues (2006) found that impulsivity and stimulation seeking were associated with both functions of aggression in a sample of youth from the Pittsburgh Youth Study. Given that many such traits can be elevated in people with both antisocial and borderline traits, this suggests that certain antisocial and borderline features may "overlap" to predict specific aggressive behaviors. Consonantly, Penson and colleagues (2018) found that antisocial and borderline features interacted to predict outcomes and behaviors. This seems to suggest that there is a need for a better understanding of how specific antisocial and borderline features (in the context of this study, subscales) may co-occur with dysfunctional behaviors that have been found to precede negative outcomes later in life. Given that males and females often display different constellations of antisocial and borderline traits, gender may also impact how these traits manifest and co-occur, as well as be useful for understanding which traits are most relevant to aggression (Barnow et al., 2007 Goldstein et al., 1996; Johnson et al., 2003. Accordingly, this study

examines antisocial and borderline features as they co-occur, not solely in models that examine these traits independent of one another.

Current Study

The current study had a number of aims. First, using cross-sectional archival data, this study examined the prevalence of antisocial features, borderline features, and forms and functions of aggression in a sample of at-risk youth as a whole and by gender. This study also assessed gender differences in links between overall personality pathology features and aggression. Lastly, this study explored associations between Antisocial (ANT) and Borderline (BOR) subscales and the forms and functions of aggression in boys and girls in this sample separately. Due to the demographics of the program where data were collected, this sample is majority male and in part shares that limitation with previous research in this area; however, the sample is large and the number of girls is sufficient to allow for inferences related to gender differences and female-specific associations (for statistical power of 0.8 and an expected effect size of 0.25, minimum required sample size = 69; Cohen et al., 2003; Soper, 2023). This targeted investigation of gender differences in associations between specific antisocial and borderline features (ANT and BOR subscales) and externalizing behaviors (forms and functions of aggression) may be instrumental to parsing the disparate constellations of traits and behaviors that boys and girls with these problems may experience from adolescence into adulthood.

This study has a number of hypotheses. Firstly, across gender, overall borderline features were expected to be associated with all forms and functions of aggression but more strongly linked with reactive aggression (given stronger ties between neuroticism

and reactive aggression; Gardner et al., 2012) and relational aggression (given prior ties; Crick et al., 2007; Ostrov & Houston, 2008) in both correlational and regression analyses. Alternatively, for both boys and girls, antisocial features were expected to be associated with all forms and functions of aggression, but most strongly proactive aggression (e.g., Bezdjian et al., 2011) and overt aggression (Ostrov & Houston, 2008) in both correlational and regression analyses. Regarding gender differences between study variables, more girls were expected to have elevated borderline features in this sample than boys, and more boys were expected to have elevated antisocial features in this sample than girls. Given prior research suggesting that boys with elevated borderline features may be more likely to display an aggressive and antisocial presentation (Bradley et al. 2005), it was hypothesized that overall borderline features in boys would be more strongly linked with forms and functions of aggression than in girls. Alternatively, given that girls with elevated antisocial features may be more likely to display nonviolent antisocial behaviors such as relational aggression (Alegria et al., 2013), it was hypothesized that links between antisocial features and relational functions of aggression would be stronger among girls than among boys.

Given limited prior research investigating gender differences and/or utilizing the Personality Assessment Inventory – Adolescent's subscales, many of this study's attempts to elucidate directional relationships between ANT and BOR subscales and dependent variables (forms and functions of aggression) were exploratory in nature. This said, a number of gender differences were also hypothesized. At the subscale level, Affective Instability (BOR-A, reflecting highly responsive emotions that may manifest in rapid and/or extreme mood swings) was expected to positively predict reactive

aggression in both boys and girls, given links between reactive aggression and both dysregulation and impulsivity (Maneiro et al., 2020; Banny et al., 2014). Self-harm (BOR-S, reflecting impulsivity in areas with high potential for negative consequences) was expected to be more strongly positively linked with reactive functions of aggression in men than women, given that impulsivity has been previously more strongly linked to aggression in men than women (Mancke et al., 2015). Given postulations that perhaps interpersonal relationships weigh heavier on outcomes and behaviors for girls (Goldstein et al., 1996), Negative Relationships (BOR-N, reflecting a history of intense and unstable relationships and frequent feelings of resentment and betrayal with people close them) was expected to be more strongly positively associated with relational forms of aggression for girls than boys. Given extant research suggesting antisocial behaviors are a strong positive predictor of aggression across gender *(*Marsee et al., 2005) Antisocial Behaviors (ANT-A, reflecting a history of antisocial acts) was expected to be positively linked to all forms and functions of aggression in both boys and girls. Egocentricity (ANT-E, reflecting a tendency to be seen as egocentric with little regard for others, who may take advantage of others to satisfy their goals) was expected to be linked most strongly to proactive forms of aggression across gender. Lastly, given previous research (Raine et al., 2006), Stimulation Seeking (ANT-S, reflecting a likelihood to manifest reckless and potentially dangerous behavior and a craving for excitement) was expected to be linked to both functions of aggression across gender.

CHAPTER II – METHODS

Participants

The data for this study draws from an archival database of 464 adolescents (M_{age} = 16.79 years, 84.9% male) participating in a military-style bootcamp for at-risk 16- to 18-year olds in south-central United States. Data were collected between August 2015 and March 2018. The residential boot camp in the south-central United States provides services to youth who have dropped out of school, such as job skills training, educational services, and discipline. While youth have chosen to participate in the program, they often experience problems prior to enrollment that tend to co-occur with low academic achievement and dropout such as behavioral problems and delinquency. These data were collected on-site at the boot camp by research assistants trained prior to data collection procedures. Youth were approached to participate in research voluntarily. Participants that had completed all measures of interest were included in the preliminary data set. Participants that had sufficient missing data (per manual criteria; Morey, 2007) on one or more of the scales of the PAI-A or exceeded recommended cutoffs for clinical scale interpretation on validity scales (e.g., INF) were removed from this sample. Mode-wise data imputation was also utilized to supplement cases with <2 missing scores for the Peer Conflict Scale (n= 42). Participants that exceeded missing data thresholds for the PCS or otherwise did not report demographic information were also removed from the sample, resulting in a valid sample of 464 cases. Prior research with this sample assessed whether participants with valid vs. invalid data differed on demographic variables like age, ethnicity and gender and found no significant differences between youths who were

excluded as a result of data validity concerns and those who had not (Charles et al., 2021).

Measures

Personality Assessment Inventory – Adolescent. The Personality Assessment Inventory – Adolescent (PAI-A; Morey, 2007) is a 264-item self-report measure used to assess personality, psychopathology, and current functioning for youth aged 12-18. In this study, the PAI-A was used to gauge Borderline Features (BOR) and its respective subscales (BOR-A: Affective Instability; BOR-I: Identity Problems; BOR-N: Negative Relationships; BOR-S: Self Harm) and Antisocial Features (ANT) and its respective subscales (ANT-A: Antisocial Behaviors; ANT-E: Egocentricity; ANT-S: Stimulus-seeking). Participants responded to all questions on a four-point Likert scale (0= *False/ Not at all true, 1= Slightly true, 2= Mainly true, 3 = Very true*), with higher summed scores indicating higher symptom severity. Scale and subscale scores are then converted to linear T-scores with a mean of 50 (SD=10). Strong internal consistency coefficients have been found across community and clinical samples (0.79-0.80, per Charles et al., 2021).

Forms and Functions of Aggression. Participants completed the Peer Conflict Scale (PCS; Marsee et al., 2004), a 40-item, self-report questionnaire that assesses forms and functions of aggression. Youth were prompted to read items that describe proactively aggressive and reactively aggressive attitudes and behaviors and respond on a four-point Likert scale (1 = *Not at all True*, 4 = *Definitely True)*. Scores on individual items were summed to create the four PCS subscales (reactive overt aggression, reactive relational aggression, proactive overt aggression, and proactive relational aggression). Reliability

estimates for the current sample are considered excellent or very high (Proactive Aggression, α= .929; Reactive Aggression α= .914; Relational Aggression α= .915; Overt Aggression α= .922).

Demographics. Participants self-reported age, gender, race, and ethnicity. No participants reported non dichotomous gender, resulting in a dichotomous gender variable for split sample analyses. This sample is comprised of 394 males (84.9%) and 70 females (15.1%). This sample was 62.28% White/Caucasian (*n*= 289), 28.66% African American/Black (*n*=133), 2.8% Hispanic/Latinx (*n*=13), 0.65% Asian (*n*=3), 2.81% American Indian/Alaskan Native (*n*=13), and 2.59% Multiracial (*n*=12). One participant indicated their Ethnicity as "other" (0.22%). The average age of the sample was 16.79 years. There were insufficient participants in all individual racial/ethnic classes to include specific regression analyses related to each racial/ethnic class. Accordingly, a binary ethnicity variable (0 = non-White, 1 = White) in order to retain

Procedures

All study procedures were approved by researchers' Institutional Review Board (IRB) prior to data collection initiatives. Adolescents who were of legal age (>18 years of age) at time of collection provided informed consent for study procedures, while those who were under the age of 18 provided verbal assent. The boot camp director, considered guardian ad litem for youth in this program, provided consent for youth research participation. Data were then collected for approximately 45 minutes using online survey software (Qualtrics) during group testing sessions in program classrooms.

Data Analytic Plan

First, bivariate correlations were calculated between PAI-A scales and the forms and functions of aggression in the sample as a whole. To account for non-normality of data, all variables were transformed to Z-scores prior to all inferential analyses. Prior to ANOVA analyses, Levene's test for homogeneity of variances was calculated given unequal sample sizes. Levene's test showed that the variances for all ANT scales and subscales were equal, no $p<.05$. However, Levene's test showed that the variances for overall Borderline features (BOR; $F(1, 462) = 6.77$, $p=.01$), Identity Problems (BOR-I; $F(1,462) = 4.94$, $p= .03$), and Self-Harm (BOR-S; $F(1,462) = 4.00$, $p=.05$) were not equal. Accordingly, while all ANT scales and subscales meet statistical assumptions necessary for one-way ANOVA analyses, BOR, BOR-I, and BOR-S p-values were replaced with those derived from a Welch ANOVA (per Moder, 2010).

The sample was then split by gender and bivariate correlations were run and compared using a Fisher Z-transformation to determine if the magnitude of the correlational difference between genders was significant. Average scores on the PAI-A and PCS scales in the sample as a whole and within each gender separately were calculated and gender differences were examined using ANOVA (ANT and BOR subscales) and Mann-Whitney U Statistic (forms and functions of aggression, due to non-normal distribution of these data). Next, higher order ANT and BOR Features were regressed upon the forms and functions of aggression in attempts to provide grounds for later exploratory regression models. Given that extant research suggests antisocial behaviors are a strong predictor of aggression across gender (Marsee et al., 2005), antisocial and borderline features were examined as predictors both concurrently and independent of one another in efforts to further parse the incremental contribution of

these traits. Accordingly, separate hierarchal regression models were created for all four forms and functions of aggression with separate blocks; first, all four BOR subscales predicting PCS scales, then all seven ANT and BOR subscales predicting PCS scales, and finally all three ANT subscales predicting PCS scales. Then, these models were examined separately by gender. Lastly, simplified models were created for each aggression construct by gender that included scales identified as being more closely related to that domain of aggression via preliminary analyses. Prior to regression analyses, preliminary correlations and analyses of variance were calculated and considered to examine the baseline differences by demographic variables (here, age and ethnicity) before including these variables as controls in these models. The results of collinearity diagnostics found no evidence of multicollinearity in these data (all VIF < 5).

CHAPTER III - RESULTS

Preliminary Analyses: Examinations of Group Differences

Demographic Differences. Overall sample descriptive statistics are reported in Table 1. Preliminary analyses were conducted to examine group differences among study variables in relation to demographic variables (ethnicity, age). Due to the non-normal distribution of aggression data, analyses of variance were not used to assess group differences in these study variables. Alternatively, to assess the effect of ethnicity (White/Caucasian, African American/Black, Hispanic/Latinx, Asian, American Indian/Alaskan Native, Multiracial, and other), a Kruskal-Wallis test was conducted. These results indicated no significant differences across racial/ethnic groups for reactive overt and reactive relational aggression. However, there were significant differences by ethnic group for proactive overt aggression ($\chi2(6) = 13.60$, $p= .03$) and proactive relational aggression ($\chi2(6) = 15.60$, $p = .02$) suggesting differences in proactive forms of aggression between ethnic groups. The Kruskal-Wallis test found significant differences by ethnic group for both overall ANT ($\chi2(6) = 12.90$, $p = .05$) and overall BOR features ($\chi2(6) = 13.23$, $p = .04$). At the subscale level, there were significant differences by ethnic group for Negative Relationships ($\chi2(6) = 13.62$, $p= .034$, Self-Harm ($\chi2(6) = 15.67$, $p= .016$), Egocentricity ($\chi2(6) = 19.10$, $p<.01$), and Stimulus-Seeking ($\chi2(6) = 28.06$, $p <.01$). A further examination into the nature of these differences found that, for example, 1 individual who selected their ethnic origin as “other” had significantly higher mean scores in aggression constructs, and constituted their own ethnic group. Given there were insufficient participants in many racial/ethnic groups to include specific analyses related to each, a binary ethnicity variable (0= non-White, 1=White) was generated for

analyses. To assess the effect of age, bivariate correlations between continuous age and higher order ANT and BOR features and the forms and functions of aggression, respectively, were examined. While reactive overt aggression had a small negative correlation with age, $r(464) = -.11$, $p = .02$, no other correlations reached significance.

Gender differences in ANT and BOR Features. Gender differences among ANT and BOR features and their respective subscales were examined using ANOVA. In line with Moder, 2010, p-values from one-way ANOVA results were replaced with those from Welch ANOVA results for those subscales that did not pass Levene's test (as indicated in Table 3). As indicated in Table 3, there was a statistically significant difference between the male and female sample by one-way ANOVA for overall Antisocial Features (ANT), Antisocial Behaviors (ANT-A), and Egocentricity (ANT-E), such that the male sample reported statistically significantly higher features in these domains. No significant gender difference was evident for Stimulus-Seeking (ANT-S). As indicated in Table 3, there was a statistically significant difference between the male and female sample by Welch's ANOVA for overall Borderline Features (BOR) and Identity Problems (BOR-I) and by One-way Anova for Affective Instability (BOR-A) and Negative Relationships (BOR-N), such that the female sample reported statistically significantly higher in these domains. No significant gender difference was evident for Self-Harm (BOR-S).

Gender differences in aggression. Due to the non-normal distribution of aggression data, a Mann-Whitney U test was conducted to determine whether there was a difference in the forms and functions of aggression between the male and female

samples. As indicated in Table 4, the results indicated a significant gender difference between groups for proactive overt aggression (U=10927.00, p= .003) and reactive overt aggression (U=10696.50, p= .002), suggesting statistically significantly higher mean ranks in these domains for the male sample compared to the female sample. As indicated in Table 4, the results indicated a non-significant difference by gender for proactive relational and reactive relational aggression.

Preliminary Analyses: Bivariate Correlations and Fisher's Z Transformation

Borderline Personality Features. Results of bivariate correlations for both the sample as a whole and separately by gender are reported in Table 2. Overall Borderline Features demonstrated small to moderate correlations with all forms and functions of aggression in this sample as a whole, $r(464) = .16 - .34$, all $p<.05$. As indicated in Table 2, overall Borderline Features demonstrated moderate correlations with reactive overt and reactive relational aggression among females, but correlations with proactive overt and proactive relational aggression were non-significant. Alternatively, overall Borderline features demonstrated moderate positive correlations with reactive overt aggression and small correlations with proactive overt, reactive relational, and proactive relational aggression among males.

Affective Instability (BOR-A) demonstrated small to moderate correlations with all forms and functions of aggression in the sample as a whole, $r(464) = .16 - .35$, all $p<.05$. Affective Instability demonstrated small to moderate correlations with the forms and functions of aggression in the female sample, $r(70) = -.29 - .42$, all $p<.05$ compared to respectively weaker correlations in the male sample, $r(394)= .14 - .35$, all $p<.05$. The magnitude of differences between correlations for males and females was significant for

the correlation between affective instability and reactive relational aggression (Z=-1.75, one-tailed $p = .04$).

Identity Problems (BOR-I) had small positive correlations with reactive overt, proactive overt, and reactive relational aggression, $r(464) = .12\text{-}.20$, all $p < .05$ but not with proactive relational aggression in the overall sample, $r(394) = .15$, $p = .25$. When examined separately by gender, the correlation between reactive overt aggression and Identity problems was small to moderate and statistically significant for both the male, $r(394) = .20$, $p < .01$ and female sample, $r(70) = .29$, $p < .05$. The correlation between identity problems and proactive overt aggression was relatively weaker in both groups and statistically significant for the male sample, $r(394) = .14$, $p < .001$, but not the female sample, $r(70) = .16$, $p = .19$, and the correlation between identity problems and reactive relational aggression was moderate and statistically significant for the female sample, $r(70) = .29$, $p < .001$, but small and nonsignificant in the male sample, $r(394) = .08$, $p = .11$. The magnitude of the differences between correlations for males and females approached significance for correlations between reactive relational aggression and identity problems (Z=-1.62, one-tailed $p = .05$) ; other comparisons did not indicate a significant gender difference.

Negative relationships (BOR-N) had small positive correlations with reactive overt, proactive overt, and reactive relational aggression in the overall sample, $r(464) = .12 - .19$, all $p < .05$. When examined separately by gender, each of these three correlations remained significant for the male sample but not the female sample (see Table 2). Further, while the correlation between proactive relational aggression and negative relationships was not significant in the overall sample $r(464) = .08$, $p = .08$ nor in the

female sample, $r(70) = .03$, $p = .78$, this correlation was small but significant among the male sample, $r(394) = .10$, $p = .04$.

Self-Harm (BOR-S) demonstrated small to moderate correlations with all forms and functions of aggression in the overall sample, $r(464) = .23$ - $.35$, all $p < .05$. When examined separately by gender, all correlations remained significant for the male sample, $r(394) = .23$ - $.37$, all $p < .05$. Alternatively, while correlations between self-harm and reactive forms of aggression (reactive overt, $r(70) = .30$, $p = .01$; reactive relational, $r(70) = .30$, $p = .01$) remained significant among females, correlations between proactive forms (proactive overt, $r(394) = .22$, $p = .06$; proactive relational, $r(394) = .23$, $p = .06$) only approached significance among males.

Antisocial Personality Features. Overall Antisocial Features demonstrated largely moderate correlations with all forms and functions of aggression in the overall sample, $r(464) = .29 – 43$, all $p < .05$. As indicated in Table 2, all correlations were significant when examined separately by gender, with respectively larger correlations evident for the female sample compared to the male sample in all domains, $r(70) = .40$ - $.51$, all $p < .05$.

Antisocial Behaviors (ANT-A) had small to moderate correlations with all forms and functions of aggression in the overall sample, $r(464) = .26$ - $.42$, all $p < .05$. All correlations were significant when examined separately by gender, with respectively larger correlations evident for the female sample, $r(70) = .34$ - $.54$, all $p < .05$, compared to the male sample, $r(394) = .24$ -$.38$, all $p < .05$. Although the magnitude of differences between these correlations for males and females was not statistically significant when examined via a Fisher's Z transformation, the difference between Antisocial behaviors and Reactive Overt aggression approached significance ($Z = -1.54$, one-tailed $p = .06$).

Egocentricity (ANT-E) demonstrated small positive correlations with all forms and functions of aggression in the overall sample, $r(464) = .23 - .32$, all $p < .05$. When examined separately by gender, respectively larger correlations between Egocentricity and the forms and functions of aggression were found for the female sample, $r(70) = .34 - .54$, all $p < .05$, compared to the male sample, $r(394) = .24 - .38$, all $p < .05$. The magnitude of differences between correlations for males and females were significant when examined via a Fisher's Z transformation ($Z = -2.6 - -3.58$, all one-tailed $p < .01$).

Lastly, Stimulus-seeking (ANT-S) was moderately positively correlated with overt functions of aggression $r(494) = .31-.38$, all $p < .05$, and had small positive correlations with relational functions of aggression for the overall sample, $r(464) = .21-.22$, all $p < .05$. As reported in Table 2, all correlations remained significant when examined separately by gender. The magnitude of differences between correlations for males and females were not significant when examined via a Fisher's Z transformation.

Regression Analyses: Higher Order Analyses

To provide grounds for later regression models using ANT and BOR subscales, hierarchical multiple regressions including total ANT and BOR scores were conducted with four blocks of variables and the form/function of aggression (e.g., reactive overt aggression) as the dependent variable. Given the restricted range for the age variable and the lack of significant associations with variables of interest, age was not included as a control variable in these models. Further, although tests of group differences reported above indicated some variability across racial/ethnic identities in this sample, there were insufficient participants in many racial/ethnic groups to include specific analyses related to each. Accordingly, a binary ethnicity variable (0= non-White, 1=White) was generated

and included as a control variable in the first block of each model (Model 1). In block two, BOR was added into the model (Model 2), followed by ANT in block three (Model 3). Finally, a fourth model (Model 4) was run that included only the control and ANT to easily assess and demonstrate any individual contribution of ANT irrespective of BOR. These same analyses were then conducted separately for the male and female samples.

Reactive Overt Aggression. For the overall sample, the hierarchal regression results showed that the overall models were significant for Model 2 ($F(2,461) = 31.32$, $p<.01$, $R2 = .12$), Model 3 ($F(3,460) = 39.68$, $p<.01$, $R2 = .21$), and Model 4 ($F(2,461) = 52.63$, $p<.01$, $R2 = .19$). BOR was a significant positive predictor in Model 2, ANT and BOR were significant positive predictors in Model 3, and ANT was a significant positive predictor in Model 4. These models were then examined separately by gender, and all regression coefficients are presented in Table 5. Results for Model 1 show that ethnicity was not a significant predictor across gender and models. Model 2 was significant for both males ($F(2,391) = 32.30$, $p<.01$) and females ($F(2,67)=5.05$, $p<.01$), with BOR a significant positive predictor among both groups. Model 3 was also significant among both males ($\Delta R2= .05$, $F(3,390)= 30.53$, $p<.01$) and females ($\Delta R2= .23$, $F(3,66)= 12.26$, $p<.01$). Both BOR and ANT were significant positive predictors of reactive overt aggression among males, whereas only ANT was a significant positive predictor among females in Model 3. Lastly, Model 4 was also significant among males ($F(2,391) = 35.60$, $p<.01$) and females ($F(2,67) = 18.64$, $p<.01$), with ANT a significant positive predictor in both groups. Overall, these models suggest the greatest amount of variance in reactive overt aggression in males, 19.0% of total variance, was accounted for by Model 3. Model 3 and 4 predicted the same amount of variance, 35.8% of total variance, among females.

Proactive Overt Aggression. For the overall sample, the hierarchal regression results for Model 1 showed that White youth had lower levels of proactive overt aggression than non-White youth, and binary ethnicity remained a significant factor across models (Model 1, $F(1,462) = 7.45$, $p=.007$, $R^2 = .02$; Model 2, $F(2,461) = 22.19$, $p<.01$, $R^2 = .09$; Model 3, $F(3,460) = 36.38$, $p<.01$, $R^2 = .19$; and Model 4, $F(2,461) = 53.44$, $p<.01$, $R^2 = .19$). In Model 2, BOR was also a significant positive predictor. In Models 3 and 4, ANT was also a significant positive predictor. These models were then examined separately by gender, and all regression coefficients are presented in Table 6. Results for Model 1 showed that White females had lower levels of proactive overt aggression than non-White females ($F(1,68) = 9.63$, $p=.003$), but a similar effect was not found among males. When additional variables were added to the model, binary ethnicity was a significant negative predictor in both groups across models. Model 2 was significant for both males ($F(2,391) = 21.87$, $p<.01$) and females ($F(2,67)= 7.09$, $p<.01$). In addition to binary ethnicity, BOR was also a significant positive predictor in both groups. Model 3 was also significant for both males ($\Delta R^2= .07$, $F(9,390)= 27.24$, $p<.01$) and females ($\Delta R^2= .22$, $F(3,66)= 4.53$, $p<.01$). ANT was a significant positive predictor in both groups, whereas BOR was also a significant positive predictor among males. Lastly, Model 4 was also significant for both males ($F(2,391) = 37.98$, $p<.01$) and females ($F(2,67) = 21.11$, $p<.01$). Again, ANT was a significant positive predictor in both groups. Overall, these models suggest the greatest amount of variance in proactive overt aggression was accounted for by Model 3 for both the male sample, 17.3% of total variance, and the female sample, 39.8% of total variance.

*Reactive Relational Aggression***.** For the overall sample, the hierarchal regression results for Model 1 approached significance ($F(1,462) = 3.76$, $p = .053$, $R^2 = .01$) suggesting that White youth had lower levels of reactive relational aggression than non-White youth. Binary ethnicity remained a significant factor across models, the remainder of which were statistically significant (Model 2 ($F(3,459) = 14.62$, $p < .01$, $R^2 = .06$; Model 3 ($F(4,458) = 18.20$, $p < .01$, $R^2 = .11$; Model 4 ($F(3,459) = 25.50$, $p < .01$, $R^2 = .10$). In Model 2, BOR was also a significant positive predictor. In Models 3 and 4, ANT was also a significant positive predictor. These models were then examined separately by gender, and all regression coefficients are presented in Table 7. Results for Model 1 showed that White females had lower levels of reactive relational aggression than non-White females ($F(1,68) = 5.00$, $p = .029$), but a similar effect was not found among males. When additional variables were added to the model, binary ethnicity remained a significant negative predictor of reactive relational aggression among females. Model 2 was significant for both males ($F(2,391) = 9.20$, $p < .01$) and females ($F(2,67) = 7.30$, $p < .01$). BOR was a significant positive predictor of reactive relational aggression in both groups. Model 3 was also significant among males ($\Delta R^2 = .04$, $F(3,390) = 11.51$, $p < .01$) and females ($\Delta R^2 = .10$, $F(3,66) = 8.40$, $p < .01$). Model 4 was also significant among males ($F(2,391) = 16.38$, $p < .01$) and females ($F(2,67) = 12.42$, $p < .01$), ANT was a significant positive predictor of reactive relational aggression in both groups in Models 3 and 4. Overall, these models suggest the greatest amount of variance in reactive relational aggression was accounted for by Model 3 for both the male sample, 8.1% of total variance, and the female sample, 27.6% of total variance.

Proactive Relational Aggression. For the overall sample, the hierarchal regression results for Model 1 showed that White youth had lower levels of proactive relational aggression than non-White youth ($F(1,462) = 14.11$, $p<.01$, $R^2 = .03$). Binary ethnicity remained a significant factor across models, all of which were statistically significant (Model 2, $F(2,461) = 15.42$, $p<.01$, $R^2 = .06$; Model 3 ($F(3,460) = 20.50$, $p<.01$, $R^2 = .12$; Model 4, $F(2,461) = 30.53$, $p<.01$, $R^2 = .12$). BOR was a significant positive predictor in Model 2 and ANT was a significant positive predictor in Models 3 and 4. These models were then examined separately by gender, and all regression coefficients are presented in Table 8. Results for Model 1 showed that both White females and White males had lower levels of proactive relational aggression than non-White males and females, respectively (males, $F(1,392) =7.50$, $p<.01$; females, $F(1,68) = 11.23$, $p<.01$). When additional variables were added to the model, binary ethnicity was a significant negative predictor across models. Model 2 was significant for both males ($F(2,391) = 10.64$, $p<.01$) and females ($F(2,67) = 7.91$, $p<.01$). BOR was a significant positive predictor in both groups. Model 3 was also significant for both males ($\Delta R^2 = .05$, $F(3,390) = 13.82$, $p<.01$) and females ($\Delta R^2 = .11$, $F(3,66) = 9.38$, $p<.01$). Model 4 was also significant for both males ($F(2,391) = 20.53$, $p<.01$) and females ($F(2,67) = 14.25$, $p<.01$). ANT was a significant positive predictor of proactive relational aggression in both groups in Models 3 and 4. Overall, these models suggest a similar amount of variance in proactive relational aggression was accounted for by Models 3 and 4 among males, 9.6% and 9.5%, and females, 29.9% and 29.8%, respectively.

Regression Analyses: ANT and BOR Subscales

To explore specific aspects of each personality factor, hierarchical multiple regressions were conducted with four blocks of variables and the form/function of aggression (e.g., reactive overt aggression) as the dependent variable. As before, a binary ethnicity variable was included as a control variable in the first block of each model (Model 1). In block two, BOR was added into the model (Model 2), followed by ANT in block three (Model 3). Finally, a fourth model (Model 4) was run that included only the control and ANT to easily assess and demonstrate any individual contribution of ANT irrespective of BOR. Then, these same analyses were conducted separately for the male and female samples. All results for Model 1, containing only binary ethnicity, are reported above.

Reactive Overt Aggression. For the overall sample, the hierarchal regression results showed that these models were significant for Model 2 ($F(5,458) = 16.34$, $p<.01$, $R2 = .16$), Model 3 ($F(8,455) = 17.32$, $p<.01$, $R2 = .23$), and Model 4 ($F(4,459) = 30.23$, $p<.01$, $R2 = .21$). Affective Instability and Self-Harm were significant positive predictors in Model 2. Affective Instability, Antisocial Behaviors, and Stimulation Seeking were significant positive predictors in Model 3. Antisocial Behaviors and Stimulation Seeking were significant positive predictors in Model 4. These models were then examined separately by gender and all regression coefficients are presented in Table 9. Binary ethnicity was never a significant factor across models. Model 2 was significant for both males ($F(5,388) = 16.40$, $p<.01$) and females ($F(5,64) =3.67$, $p=.006$). Affective Instability and Self-Harm were significant positive predictors of reactive overt aggression among males in Model 2, while only Affective Instability was a significant positive predictor among females. Model 3 was also significant for both males ($\Delta R2= .06$,

F(8,385)= 14.32, p<.01) and females (ΔR2= .23, F(8,61)= 6.30, p<.01). Affective Instability, Antisocial Behaviors, Stimulation Seeking, Egocentricity, and Self-Harm were significant positive predictors of reactive overt aggression among males in Model 3, while Antisocial Behaviors and Egocentricity were significant positive predictors among females. Lastly, Model 4 was also significant among males (F(4,389) = 23.01, p<.01) and females (F(4,65) = 11.17, p<.01). Antisocial Behaviors and Stimulation Seeking were significant positive predictors of reactive overt aggression among males in Model 4, whereas Antisocial Behaviors and Egocentricity were significant positive predictors among females. Overall, these models suggest the greatest amount of variance in reactive overt aggression was accounted for by Model 3 for both males, 22.9% of total variance, and females, 45.2% of total variance.

One goal of this study was to explore whether different, simplified models could explain different amounts of variance within each gender. As Affective Instability, Self-Harm, Antisocial Behaviors, and Stimulation Seeking were more closely related to proactive relational aggression among males, a model was created based on these scales that accounted for 21.8% of the variance among boys and 31.5% of the variance in girls. Alternatively, as Affective Instability, Antisocial Behaviors, and Egocentricity were more closely related to reactive overt aggression among females, a model was created based on these scales that accounted for 19% of variance among males compared to 40.1% in females. Note that binary ethnicity was not included in these best fit models as a control variable predicting reactive overt aggression, given nonsignificant coefficients across gender.

Proactive Overt Aggression. For the overall sample, the hierarchal regression results showed that these models were significant for Model 2 ($F(5,458) = 13.86$, $p<.01$, $R^2 = .13$), Model 3 ($F(8,455) = 14.43$, $p<.01$, $R^2 = .20$), and Model 4 ($F(4,459) = 27.10$, $p<.01$, $R^2 = .19$). Results showed that White youth had lower levels of proactive overt aggression than non-White youth across models. Affective Instability and Self Harm were significant positive predictors in Model 2. Antisocial Behaviors, Egocentricity, and Stimulation Seeking were significant positive predictors in Models 3 and 4. These models were then examined separately by gender and all regression coefficients are reported in Table 10. Binary ethnicity was a significant negative predictor in both groups across models. Model 2 was significant for both males ($F(5,388) = 12.32$, $p<.01$) and females ($F(5,64)= 5.06$, $p=.01$). Affective Instability was a significant positive predictor in both groups and Self-Harm was a significant positive predictor in males only. Model 3 was significant for both males ($\Delta R^2= .05$, $F(8,385)= 10.84$, $p<.01$) and females ($\Delta R^2= .21$, $F(8,61) =7.39$, $p<.01$). Antisocial Behaviors was a significant positive predictor among males in Model 3 and Egocentricity was a significant positive predictor among females. Model 4 was significant for both males ($F(4,389) = 19.41$, $p<.01$) and females ($F(4,65) = 13.14$, $p<.01$). Antisocial Behaviors and Stimulation-Seeking were significant positive predictors of proactive overt aggression among males in Model 4 and Antisocial Behaviors and Egocentricity were significant positive predictors among females. Overall, these models suggest the greatest amount of variance in reactive overt aggression was accounted for by Model 3 for both the male sample,18.4% of total variance, and the female sample, 49.2% of total variance.

As binary ethnicity, Self-Harm, Antisocial Behaviors, and Stimulation Seeking were more closely related to proactive overt aggression among males, a model was created based on these scales that accounted for 17.4% of the variance among boys and 34.3% in girls. Alternatively, as binary ethnicity, Affective Instability, and Egocentricity were more closely related to reactive overt aggression among females, a model was created based on these scales that accounted for 13.1% of variance among males and 41.1% in females. Note that binary ethnicity was included in all best fitting models, given evidence of significant coefficients across gender.

Reactive Relational Aggression. For the overall sample, the hierarchal regression results showed that these models were significant for Model 2 ($F(5,458) = 7.80$, $p<.01$, $R^2 = .08$), Model 3 ($F(8,455) = 7.11$, $p<.01$, $R^2 = .11$), and Model 4 ($F(4,459) = 13.06$, $p<.01$, $R^2 = .10$). Results showed that White youth had lower levels of proactive overt aggression than non-White youth across models. Self-Harm was a significant positive predictor in Model 2 and Antisocial Behaviors was a significant positive predictor in Models 3 and 4. These models were then examined separately by gender and all regression coefficients are presented in Table 11. Binary ethnicity was a significant negative factor in Models 2 and 3 among females. Model 2 was significant for both males ($F(5,388) = 5.87$, $p<.01$) and females ($F(5,64)= 3.71$, $p=.005$). Self-Harm was a significant positive predictor of reactive relational aggression among males in Model 2, whereas binary ethnicity (as reported above) was the only significant factor in predicting reactive relational aggression among females in Model 2. Model 3 was also significant for both males ($\Delta R^2= .02$, $F(8,385) = 4.96$, $p<.01$) and females ($\Delta R^2= .19$, $F(8,61)= 5.41$, $p<.01$). Antisocial Behaviors was a significant positive predictor of reactive

relational aggression among males, whereas Egocentricity was also a significant positive predictor among females. Model 4 was significant for both males ($F(4,389) = 8.66$, $p<.01$) and females ($F(4,65) = 10.44$, $p<.01$). Antisocial Behaviors was a significant positive predictor of reactive relational aggression among males in Model 4. Egocentricity was a significant positive predictor among females in Model 4. Overall, these models suggest the greatest amount of variance in reactive overt aggression was accounted for by Model 3 among males, 9.3% of total variance, and females, 41.5% of total variance.

Follow-up examination of these models did not find evidence of significant gender differences in associations sufficient to substantiate individual best fitting models. Generally, coefficients across these models suggested that ethnicity and egocentricity were the only significant predictors of reactive relational aggression among females, and findings were inconsistent in predicting reactive relational aggression among males. Accordingly, no further modifications were made to this model.

Proactive Relational Aggression. For the overall sample, the hierarchal regression results showed that these models were significant for Model 2 ($F(5,458) = 9.39$, $p<.01$, $R^2 = .09$), Model 3 ($F(8,455) = 7.95$, $p<.01$, $R^2 = .12$), and Model 4 ($F(4,459) = 15.26$, $p<.01$, $R^2 = .12$). Results showed that White youth had lower levels of proactive relational aggression than non-White youth across models. Self-Harm was a significant positive predictor in Model 2. Antisocial Behaviors was a significant positive predictor in Models 3 and 4, with Stimulation Seeking also approaching significance in Model 4. These models were then examined separately by gender and all regression coefficients are reported in Table 12. Model 2 was significant among males ($F(5,388) = 6.96$, $p<.01$)

and females ($F(5,64) = 4.90$, $p<.01$). Self-Harm was a significant positive predictor among males, but binary ethnicity was the only significant positive predictor of proactive relational aggression among females. Model 3 was significant for both males ($\Delta R^2 = .02$, $F(8,385) = 5.58$, $p<.01$) and females ($\Delta R^2 = .12$, $F(8,61) = 5.11$, $p<.01$). Antisocial Behaviors was a significant positive predictor of proactive relational aggression among males in Model 3, whereas Egocentricity was a significant positive predictor among females. Model 4 was significant for both males ($F(4,389) = 10.31$, $p<.01$) and females ($F(4,65) = 9.38$, $p<.01$). Antisocial Behaviors and Stimulation Seeking were significant positive predictors of proactive relational aggression among males, whereas Egocentricity was a significant positive predictor among females. Overall, these models suggest the greatest amount of variance in reactive overt aggression was accounted for by Model 3 for both males, 10.4% of total variance, and females, 40.1% of total variance.

As binary ethnicity, Stimulation Seeking, Self-Harm and Antisocial Behaviors were more closely related to proactive relational aggression among males, a model was created based on these scales that accounted for 10.1% of the variance among boys and 25.7% in girls. Alternatively, as binary ethnicity and Egocentricity were more closely related to proactive relational aggression among females, a model was created based on these scales that accounted for 5.6% of variance in males and 34.9% in females. Note that ethnicity was included in all best fit models, given evidence of significant coefficients across gender.

CHAPTER IV – DISCUSSION

The present study examined associations among antisocial features, borderline features, and forms and functions of aggression in a sample of at-risk youth. Significantly, this study also explored gender differences in links between these constructs to assess how boys and girls may differ in their report of aggression and personality dysfunction domains. In this sample of at-risk youth, boys reported significantly more overall antisocial features, girls reported significantly more overall borderline features, and boys reported significantly more proactive and reactive overt aggression. In regression analyses, both overall antisocial features and overall borderline features were consistently linked to all aggression constructs across gender when considered independently of one another. When considered together, borderline features and antisocial features predicted proactive and reactive overt aggression among males. Exploratory analyses with PAI-A, ANT, and BOR subscales revealed unique associations across aggression type and gender. Affective Instability (BOR-A) emerged as a predictor of proactive and reactive overt aggression across gender, but this pattern largely diminished when considered with antisocial subscales. In contrast to expectations, Negative Relationships (BOR-N) did not display expected links with any aggression constructs. In line with expectations, Antisocial Behaviors (ANT-A) was positively linked to all aggression types among males, with less consistent patterns among females. Self-Harm (BOR-S) and Stimulation-Seeking (ANT-S) were positively linked to various aggression constructs among males, while Egocentricity (ANT-E) emerged as an unexpected and strong positive predictor of all aggression types among females. Across regression models, notably more variance in aggression was accounted for among

females than males. These results largely suggest unique personality factors may underlie aggression in at-risk girls and boys, respectively.

It was hypothesized that both overall borderline and overall antisocial features would be linked to all forms and functions of aggression in this sample, which was largely supported. Bivariate correlations among the whole sample demonstrated small to moderate links across constructs, and overall borderline and antisocial features were significant positive factors in most models predicting aggression constructs. Further, while borderline features were not more strongly tied to reactive forms and relational functions in regression analyses, and antisocial features were not more strongly tied to proactive forms functions as was predicted, previous research provides grounds for why this may be the case. It is possible that sample characteristics, such as increased psychological distress and difficulty regulating this distress, may accompany or precede the behaviors that prompt enrollment in this program for at-risk youth. There is debate regarding whether expected gender differences are evident in more aggressive samples of combined boys and girls (e.g., Stickle et al., 2012). As youth in residential treatment settings typically report a lower quality of life compared to youths in the general population (e.g., Bronsard et al., 2013) and at-risk youth report generally higher levels of aggression and psychopathology than community adolescents (e.g., Charles et al., 2021), increased emotional distress and emotional dysregulation could result in the report of generally elevated or irregular patterns between the personality domains and aggression examined in the present study. Consonantly, in a prior research study among detained boys, psychological dysregulation accounted for significant amounts of variance in aggression even after controlling for pathological personality traits (e.g., Lau, 2013).

Consistent with hypotheses, girls had significantly more overall traits associated with Borderline Personality Disorder and boys had significantly more overall traits associated with Antisocial Personality Disorder. Notably, there was not a significant gender difference evident for BOR-S (Self-Harm). Given that the BOR-S scale is posited to gauge impulsivity and the at-risk adolescents in this sample may be more impulsive than average (e.g., Charles et al., 2021), particular borderline personality features may not show expected gender differences. Further, given ongoing research on the multifaceted nature of impulsivity, it is possible that BOR-S does not differentiate between facets of impulsivity (e.g., negative urgency, positive urgency) in which gender differences may be evident (e.g., Chapple & Jonhson, 2007). It may also be the case that impulsivity does not "mean the same thing" between males and females, which could contribute to measurement problems (Glover, 2021, p. 39). There was also not a significant gender difference on the ANT-E (Egocentricity) scale. Because girls who enroll in this program reported more antisocial features on average compared to girls in community samples (per Morey, 2007, p. 53), a similar process to the findings for BOR-S may be occurring for this scale and expected gender differences in the general population may be less applicable to this population. Further, youth with elevations on ANT-E may be uniquely represented in this sample as these youth may be less receptive to lower-tier behavioral interventions and at greater risk for stable patterns of aggressive and antisocial behaviors (Frick & Dantagnan, 2005), which could result in their enrollment in the program. ANT-E was developed to represent the "pathological egocentricity and narcissism" often thought to be at the core of Antisocial Personality Disorder (Morey, 2007, p. 30). Meta analyses on gender differences in narcissism routinely find that men are more narcissistic

than women, although there is some evidence that certain domains (exploitative/entitlement and leadership/authority facets) of narcissism may drive this difference (Grijalva et al., 2015). It is unclear, however, which such facets may be reflected in the ANT-E subscale. To better understand gender differences observed here, it may be necessary to better contextualize the ANT-E subscale respective to ongoing work on the construct of narcissism.

These findings partially support study hypotheses predicting stronger ties between overall borderline features and aggression among boys. While the magnitudes of bivariate correlations were not significantly different for males and females, BOR predicted all forms and functions of aggression when considered independently of ANT in regression models. When considered in conjunction with ANT, BOR predicted proactive and reactive overt aggression among males but not females. These findings seem to suggest that both overall borderline and overall antisocial features are significant factors for understanding overt aggression among at-risk male adolescents. These findings add to the body of research in this domain in suggesting that, in addition to the profile of "cold-blooded" aggressive male, borderline features may be useful for understanding and predicting specific forms and functions of male aggression (Stickle et al., 2012). It is worth noting, however, that while BOR remained a significant factor across models among males, nearly equal amounts of variance were explained by Model 3 (including both BOR and ANT) and Model 4 (including just ANT) across aggression types. These findings are consistent with a prior meta-analysis in which ANT explained the majority of variance in antisocial outcomes and recidivism (Gardner et al., 2015). However, as Gardner and colleagues (2015) discuss, including and considering additional scales still

provides important information about the psychological presentation of offenders. For example, Penson and colleagues (2018) suggest the comorbid presence of antisocial and borderline features may be reflective of a specific variant of psychopathy known as secondary psychopathy, which has been uniquely linked to specific negative outcomes in youth (Kimonis et al., 2011; Penson et al., 2018). Additionally, while BOR was a significant positive predictor of relational functions of aggression in both males and females when considered independently, when considered in conjunction with ANT, the link between BOR and relational functions aggression was no longer significant across gender. Consistent with findings in other samples, males in this sample reported significantly more overt aggression than relational aggression. Accordingly, it is posited that these findings may reflect unique pathways to relational aggression among girls (e.g., Bowie et al., 2007; further discussed below) and tendencies among males to externalize through overt, rather than relational, aggression. Overall, these findings are partially consistent with prior research, and suggest elevated antisocial and borderline features among males and females may reflect complex – and perhaps disparate, by gender -- patterns of behavioral and emotional control issues that predict externalizing outcomes (Penson et al., 2018; Stickle et al., 2012).

Regression models including only BOR subscales provide additional support for the notion that, in line with hypotheses, borderline personality features are more closely related to certain types of aggression among boys than among girls. For example, BOR-S (Self-Harm) was positively related to both reactive overt and reactive relational aggression in the male sample but not the female sample when considered independently of antisocial constructs. When antisocial subscales were added in Model 3, the link

between BOR-S and reactive relational aggression was no longer significant for either gender but remained significant for reactive overt aggression among males. Given there was no significant gender group difference in BOR-S between males and females, these findings may reflect prior claims that males are more likely to externalize impulsive behaviors while females are more likely to internalize these behaviors (per Glover, 2021). While these findings are consistent with prior research identifying a unique link between impulsivity and aggression among males (e.g., Mancke et al., 2015), additional considerations are also worth nothing. Stickle and colleagues (2012) found the highest levels of impulsivity, aggression, and callous-unemotional traits among adjudicated youth with high levels of combined proactive and reactive aggression. However, they also found evidence of higher levels of emotionality, negative affect, and distress about social provocations among the girls in this sample, which they suggest may be a significant factor in female pathways and constellations of aggression. Given Morey (2007) suggests that BOR-S may be less related to dysphoria than other BOR subscales and may be more related to impulsive expressions, evident links between BOR-S and reactive functions of aggression may have emerged among males and not females in this sample because certain unmeasured factors (e.g., indicators of negative affect, anxiety, empathy) may factor into links between impulsivity and aggression among girls.

Inconsistent with hypotheses, BOR-A (Affective Instability) was not more strongly linked to reactive aggression across gender. In fact, BOR-A was not significantly associated with reactive relational aggression in either gender. BOR-A was positively associated with reactive overt aggression across gender in models that only contained borderline subscales; however, when antisocial subscales were added to the model this

link only remained significant among males. These findings differ from prior research that reports cross-gender links between reactive aggression, dysregulation, and impulsivity in children (Banny et al., 2014) and young adults (Maneiro et al., 2022). However, they are consistent with prior research in which ANT has been a strong predictor of offending-related behaviors (e.g., Penson et al., 2018), but prior research has also questioned the unique and specific dominance of ANT as a PAI risk factor(e.g., Edens & Ruiz, 2009). Consistent with Gardner and colleagues (2015), these results may highlight the importance of considering additional scales to better understand the psychological presentation of individuals to predict outcomes and specialize intervention efforts. Study results also suggest that when considered independently of antisocial subscales, BOR-A was also a significantly stronger predictor of both proactive and reactive overt aggression among girls compared to boys. Given higher order models predicting reactive overt aggression found similar patterns, these findings may suggest that while affective instability is positively related to reactive aggression among girls when considered independently of antisocial features, when considered together, the most meaningful predictors of reactive forms of aggression across gender, but especially among girls, are antisocial domains. This may be because while the link between affective instability and specific outcomes like aggression has been found stronger among girls (Goodman et al., 2010), this link may not be specific to aggression. Rather, affective instability may serve as a general risk factor for a host of negative outcomes not specific to externalizing aggression; for example, previous links have emerged between affective instability and depression symptoms, non-suicidal self-injury, and patterns of poor relationships (Peters et al., 2016; Tragesser et al., 2007). Thus, the link between BOR-A

and aggression may be stronger for girls when considered independent of antisocial features because (1) girls display more affective instability generally and in this sample and (2) the link between affective instability and negative outcomes may be stronger among females but especially among at-risk, highly dysregulated females who are more likely to have overt aggression outcomes (Glover, 2021; Goodman et al., 2010).

It was also hypothesized that BOR-N (Negative Relationships) would be more strongly and positively linked to relational aggression among girls compared to boys. No regression analyses identified BOR-N as a significant positive factor predicting any form or function of aggression. In fact, coefficients suggested that in contrast to evident patterns among males, increases in BOR-N in girls were associated, if non-significantly, with decreases in all aggression constructs. Further, bivariate correlations between BOR-N and relational aggression were weak, but positive and significant only among males. Consistent with prior research in which girls with antisocial personality traits report higher rates of victimization, lower social support, and greater overall impairment than men with these traits (Alegria et al., 2013), this sample of at-risk girls reported significantly more negative relationships via BOR-N than boys. Prior research may also provide support for these contrary findings. Research suggests unique negative consequences for relational aggression among girls; for example, Wang and colleagues (2015) found that relationally aggressive behaviors could only be linked to relational victimization among adolescent girls, and not boys. It is possible that relational aggression may play a unique role in the development and maintenance of social relationships among girls specifically, such that a certain level of relational aggression may be normative (Bowie, 2007) or even associated with positive outcomes like

perceived popularity (Gangel et al., 2017). Accordingly, relational aggression may not unilaterally linked to patterns of Negative Relationships as was expected.

These findings are largely consistent with expectations linking overall ANT more strongly and positively to relational functions of aggression among females compared to males. Correlations between overall ANT and relational forms of aggression were stronger for females and greater amounts of overall variance in relational functions of aggression were explained in models for females. Given that significantly more variance in female relational aggression could still be accounted for by models in which respectively little variance was accounted for among males, these findings suggest antisocial features are strong positive predictors of aggression across forms and functions among females especially. These findings contribute to the literature given prior research largely emphasizes links between antisocial features and overt, not relational aggression. Given that significantly less overt aggression, but similar levels of relational aggression are often found among females both generally and in this sample (e.g., Bowie, 2007; Loflin et al., 2016), these findings are consistent with prior research suggesting that girls with more antisocial behaviors and features may be more likely to display nonviolent antisocial behaviors such as relational aggression (e.g., Alegria et al., 2013), and that these patterns may be predictive of negative outcomes.

At the subscale level, ANT-A (Antisocial Behaviors) was predictably linked to all forms and functions of aggression in the whole sample as well as in males and females separately. Correlational analyses found generally positive correlations between ANT-A and all forms and functions of aggression across gender. ANT-A was also a significant positive predictor of proactive and reactive overt aggression across gender when

considered independently of BOR subscales. Notable gender differences were evident, however—while ANT-A was also positively predictive of relational functions of aggression among males across models, this was not true among females in any models. As discussed above, this may be because of the unique role relational aggression may play in the social development and relationships of girls (e.g., Gangel et al., 2017). If relational aggression is respectively more normative among girls, this may explain why similar levels of relational aggression were reported across gender in this sample, but a measure of behavioral antisociality was more predictive of relational aggression among boys specifically. Correlations between ANT-A and all forms and functions of aggression were qualitatively stronger among females compared to males, especially for overt functions of aggression. Given that females in this sample reported significantly more proactive and reactive overt aggression as well as ANT-A than females in community samples, correlational links may be stronger among females as a result of sampling characteristics (Goodwin & Leech, 2006). It is worth noting that even when nonsignificant, the direction of these associations and size of these coefficients was similar across gender, so these links may not have been evident due to the smaller sample of females. Alternatively, links between Antisocial Behaviors and aggression among girls may have been obscured by Egocentricity, which was an unexpected, consistent, and unique factor in predicting aggression among girls.

In contrast to expectations that ANT-E (Egocentricity) would be more strongly linked to proactive forms of aggression across gender, ANT-E was uniquely positively tied to all forms and functions of aggression among females. Bivariate correlations identified significantly stronger positive correlations between ANT-E and all forms and

functions of aggression among females compared to males. In regression models among females, ANT-E was a unilaterally significant positive factor in predicting all aggression constructs in which it was included across models, whereas in males, it was never a significant positive factor. The ANT-E subscale seeks to tap a tendency to have little regard for others, little loyalty to acquaintances, and a likelihood to take advantage of others, and has been tied more to trait elements of antisocial personality as opposed to a behavioral component gauging antisocial acts (ANT-A; Morey, 2007). Given that relational aggression may be more detrimental to the social status of girls and girls are on average more sensitive to social provocations (Gangel et al., 2017; Stickle et al., 2012), girls with typical levels of ANT-E may be less likely to aggress because of the expected negative impact of these behaviors. It follows, then, that a lack of regard for the opinions and norms of others and a tendency to devalue interpersonal relationships, consistent with ANT-E elevation, may lead girls with more egocentricity toward more frequent aggression. These results suggest that among at-risk youth, egocentricity may be more strongly linked to aggression, and perhaps other negative outcomes, in girls compared to boys. These findings also suggest that the ANT-E subscale may tap a unique domain, in contrast to some prior evidence suggesting poor discriminant validity between the ANT-A and ANT-E subscales of the PAI-A (Charles et al., 2022).

Lastly, contrary to expectations that ANT-S (Stimulation seeking) would be linked to both functions of aggression across gender, these analyses found some evidence of a unique link between ANT-S and overt functions of aggression among males. While ANT-S was significantly positively correlated with all functions of aggression across gender, it was never a positive predictor of any aggression construct among females in

any regression models. Alternatively, ANT-S was a significant positive factor in predicting male reactive overt, proactive overt, and proactive relational aggression in Models 3 and was a significant predictor of reactive overt aggression in Model 4. Given that both the ANT-S and BOR-S (Self Harm) subscales are significant factors in predicting aggression variants among males when considered independently of one another, it is possible that the ANT-S and BOR-S subscales are conceptually related. Items from both the BOR-S and ANT-S subscales gauge impulsivity and recklessness, and both antisocial and borderline traits are linked to marked impulsivity (Penson et al., 2018). Accordingly, it is possible that in the present study, these separate scales may be drawing from a shared amount of variance in aggression that could be attributed to a general impulsivity domain and that having both measures in a single model dilutes the impact that either would have individually. Further, while stimulation seeking is often linked to aggression, it is unclear the extent to which this link is consistent across gender, and across development. A prior meta-analytic review on associations between stimulation seeking and aggression found effect sizes nearly twice as large in studies that included only men compared to studies that included both men and women or only women, although methodological differences in these studies prevented authors from drawing conclusions on if this was a true effect of gender or the influence of disparate methodology (Wilson & Scarpa, 2011). The findings of the present study are consistent with this meta-analyses such that a stronger association may be evident in males, contributing to the growing body of research in this domain.

The present study has a number of methodological strengths. This study is one of the first to examine gender differences in the associations between personality pathology

and the forms and functions of aggression among at-risk adolescents, as many previous studies have excluded females from analyses (e.g., Fite et al., 2010). Further, this relatively large sample of at-risk youth represents an important population for research of this type, as the youth demonstrate more aggression and personality pathology than is typically found in in community samples but they also not from an exclusively justice-involved sample. However, while this understudied sample introduces a number of significant methodological strengths, it may also introduce some methodological limitations. All data were collected via self-report at a single time point and from a single informant, so it is impossible to determine causal relations between study variables. Future research should seek to replicate these findings by integrating multiple informants at multiple time points. Further, future research may seek to extend the generalizability of these findings by considering external criteria for aggressive behaviors (e.g., disciplinary infractions in school) and long-term outcomes of aggression across adolescence and into adulthood. Further, there were significantly more males in this sample, resulting in uneven sample sizes between the male and female groups in this study. While uneven sample sizes can reduce statistical power (Rutiscus & Lovato, 2014), consistent with study aims, separate regression analyses were conducted for the male and female samples. However, future research may seek to match sample sizes between male and female samples to more effectively compare findings between these groups. This study also exclusively examined the ANT and BOR scales of the PAI-A and did not incorporate additional PAI-A scales that have been associated with ANT and BOR scales in prior research (Morey, 2007). Further, given study aims to distinguish and identify associations between ANT and BOR and the forms and functions of aggression specifically, this study

did not utilize the AGG scale or subscales, which were not constructed consistent with these frameworks. Future work may seek to incorporate additional scales that may be relevant to the etiology of Antisocial and Borderline features (e.g., Depression – DEP; Suicidal Ideation – SUI; Drug Problems – DRG). Such work could help better understand the unique factors that may accompany and predict the emergence of personality dysfunction in adolescent boys and girls.

This study identified ethnicity as a significant predictor of various aggression constructs. Further, links between ethnicity and aggression were consistently stronger among females than males in this study. Further research should seek to clarify associations between ethnicity and aggression, as well as understand how intersectional factors (gender and ethnicity considered together) may further complicate these associations. While insufficient participants in all ethnic groups led to the inclusion of a binary ethnicity variable as covariate in these analyses, this is not an ideal practice as it overly simplifies a wide range of identities. Future research should also seek to examine these constructs in diverse samples with sufficient numbers to allow for more detailed analyses of race/ethnicity as well as establish culture fair assessments and norms for different racial and ethnic groups (Han et al., 2019). This sample was also separated by binary gender, as no participants indicated their identification with a gender minority. Future research should also seek to include gender-minoritized youth. These findings also seem to suggest that the personality factors measured here are better at predicting overt functions compared to relational functions of aggression. Accordingly, these results further justify future and ongoing research initiatives on alternative factors and processes that may be at play in pathways to relational aggression among boys and girls.

This study contributes to the growing body of literature supporting gender specific pathways to aggression. This study may have a number of implications for clinical practice utilizing the PAI-A. Given the ANT and BOR scales continue to be recognized for their predictive and incremental utility among both adult and adolescent correctional samples (e.g., Penson et al., 2018; Edens, 2009), this study suggests unique patterns of personality pathology features may be evident among at-risk adolescents. To fully capitalize upon the predictive potential of these scales, it is important for future research to further quantify the disparate patterns of personality pathology that may underlie externalizing behaviors among adolescent girls and boys, including in non-correctional samples. Further, these findings suggest a complex interrelationship between and among the ANT and BOR scales; in light of these findings, clinicians may seek to consider elevations on both ANT and BOR scales, as this could provide potentially useful clinical information (e.g., Gardner et al., 2015). Penson and colleagues (2018) suggest that certain antisocial attitudes (consistent with ANT elevations) in conjunction with poor behavioral and emotional control issues (consistent with BOR elevations) among youth often predict a problematic trajectory for adolescents. Accordingly, this study also supports the rationale for additional research on the clinical and predictive utility of examining ANT and BOR together to predict personality dysfunction and negative outcomes later in life. This study also offers a number of potential implications for future research examining personality pathology and aggression among at-risk youth. Most notably, this study identified a number of novel gender differences evident in these associations, suggesting that at-risk males and females in residential settings may display unique patterns of problems. Given developmental trajectories of personality dysfunction

are poorly understood, these findings may be interpreted in light of developmental models for understanding presentations of psychopathology in young people. For example, when considered within the framework of Socialization theory, these findings may implicate certain gender norms in disparate patterns of personality, behavioral, and psychosocial adjustment among adolescent girls and boys, respectively (e.g., Marmorstein, 2007; Paris, 1998). For example, these results are consistent with prior research positing that the disparate patterns of emotional and behavioral functioning observed among at-risk male and female adolescents may be linked to gender-specific socialization processes that produce externalizing behaviors in males and internalizing among females (e.g., Glover, 2021). Future research should seek to further understand these findings through developmental frameworks. Overall, the present study contributes to the literature by providing evidence that unique personality factors are linked to male and female aggression among at-risk adolescents.

APPENDIX A – Study Tables

Table A1. *Table 1. Overall Sample Descriptive Statistics and Frequencies*

Variable	N	%
Gender	464	
Male	394	84.9
Female	70	15.1
Ethnicity		
White/Caucasian	289	62.3
Black/African-American	133	28.7
Hispanic/Latinx	13	2.8
Asian/Pacific Islander	3	0.6
American Indian/Alaska Native	13	2.8
Multiracial	12	2.6
Other	1	0.2
		M(SD)
Age	464	16.79 (0.76)
BOR		55.99 (10.52)
BOR-A		57.14 (10.67)
BOR-I		53.64 (10.07)
BOR-N		54.95 (9.67)
BOR-S		54.22 (12.93)
ANT		54.42 (9.53)
ANT-A		56.97 (10.05)
ANT-E		49.21 (9.07)
ANT-S		54.33 (10.19)
Proactive Overt		2.73 (4.50)
Reactive Overt		5.89 (6.55)

Proactive Relational	2.24 (4.07)
Reactive Relational	2.69 (4.21)

Table A2. *Bivariate Correlations: ANT and BOR Subscales*

	Reactive Overt			Proactive Overt			Reactive Relational			Proactive Relational		
	Overall	Female	Male	Overall	Female	Male	Overall	Female	Male	Overall	Female	Male
Overall Borderline Features (BOR)	.34**	.33**	.38**	.25**	.22	.29**	.22**	.33**	.20**	.16**	.21	.16**
Affective Instability (BOR-A)	.35**	.42**	.35**	.26**	.32*	.28*	.17**	.35*	.14*	.16**	.29*	.14*
Identity Problems (BOR-I)	.20**	.29*	.20**	.13**	.16	.14*	.12*	.29*	.08	.05	.15	.04
Negative Relationships (BOR-N)	.19**	.13	.24**	.12*	.02	.17*	.15**	.15	.16*	.08	.03	.10*
Self Harm (BOR-S)	.35**	.30*	.37**	.30**	.22	.33*	.25**	.30*	.24*	.23**	.23	.23*
Overall Antisocial Features (ANT)	.43**	.58**	.39**	.41**	.51**	.39**	.30**	.45**	.27**	.29**	.40**	.27**
Antisocial Behaviors (ANT-A)	.42**	.54**	.38**	.37**	.46*	.35*	.28**	.38*	.26*	.26**	.34*	.24*
Egocentricity (ANT-E)	.23**	.55**	.18**	.32**	.56*	.29*	.23**	.57*	.18*	.25**	.50*	.21*

Stimulus-Seeking (ANT-S)	.38**	.42**	.36**	.31**	.35*	.30*	.22**	.27*	.21*	.21**	.24*	.20*

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

Table A3. *One-way Analysis of Variance of ANT scales and subscales by gender*

Measure	Male		Female		F(1, 462)	*p*
	M	SD	M	SD		
ANT	54.90	9.41	51.77	9.83	6.47	.01
ANT-A	57.45	9.89	54.29	10.62	5.95	.02
ANT-E	49.48	9.28	47.66	7.64	2.42	.12
ANT-S	54.74	10.13	52.04	10.26	4.19	.04
BOR	55.06	9.94	61.21	12.14	21.19	<.001*
BOR-A	54.36	10.41	61.56	11.10	14.51	<.001
BOR-I	52.90	9.71	57.81	11.09	14.55	<.001*
BOR-N	53.87	9.16	61.04	10.26	35.06	<.001
BOR-S	53.91	12.50	55.91	15.12	1.42	.30*

**Welch's p-value replaced regular ANOVA p-value, per Moder, 2010.*

Table A4. *Mann-Whitney U Summary of Differences of Aggression Variables by Gender*

Measure	Male			Female			U	*Z*	Sig.
	Mean	SD	Mean Rank	Mean	SD	Mean rank			
Proactive Overt	2.90	4.57	239.77	1.81	3.97	191.60	10927.00	-2.98	.003
Proactive Relational	2.29	4.08	235.69	1.97	4.00	214.55	12533.50	-1.33	.183
Reactive Overt	6.10	6.40	240.35	4.69	7.25	188.31	10696.50	-.30	.002
Reactive Relational	2.70	4.11	234.86	2.61	4.80	219.20	12859.00	-0.96	.338

Table A5. *Hierarchal Regression Analyses Predicting Reactive Overt Aggression with Higher Order ANT and BOR by gender.*

	Model 1						Model 2						Model 3						Model 4					
Reactive Overt	Male (R^2= <.01)			Female (R^2=.02)			Male (R^2=.14**)			Female (R^2= .13**)			Male (R^2= .19**)			Female (R^2=.36**)			Male (R^2= .15**)			Female (R^2= .36**)		
Variable	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B
Constant	.03	.08		.03	.24		.12	.07		-.12	.23		.08	.07		.22	.21		.03	.07		.21	.19	
Ethnicity	.01	.10	.01	-.31	.29	-.13	-.08	.09	-.04	-.34	.27	-.14	-.07	.09	-.03	-.32	.23	-.13	-.03	.09	-.01	-.32	.23	-.13
BOR							.39	.05	.38**	.32	.11	.34**	.24	.06	.23**	-.02	.12	-.02						
ANT													.26	.05	.27**	.64	.13	.60**	.39	.05	.39**	.63	.11	.58**

*p< .05. **p< .01.

Table A6. *Hierarchal Regression Analyses Predicting Proactive Overt Aggression with Higher Order ANT and BOR by gender*.

	Model 1						Model 2						Model 3						Model 4					
Proactive Overt	Male (R^2= .01)			Female (R^2= .12**)			Male (R^2= .10**)			Female (R^2= .18**)			Male (R^2= .17**)			Female (R^2= .40**)			Male (R^2= .16**)			Female (R^2= .39**)		
Variable	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B
Constant	.15	.08		.25	.18		.22	.08		.17	.18		.18	.08		.44	.16		.15	.08		.38	.15	
Ethnicity	-.18	.11	-.09	-.66	.21	-.35**	-.26	.10	-.12*	-.68	.21	-.36**	-.24	.10	-.12*	-.66	.18	-.35**	-.22	.10	-.11*	-.67	.18	-.35**
BOR							.33	.05	.31**	.17	.09	.23*	.13	.06	.13*	-.10	.09	-.13						
ANT													.33	.06	.33**	.51	10	.59**	.41	.05	.39**	.44	.08	.51**

*p< .05. **p< .01.

Table A7. *Hierarchal Regression Analyses Predicting Reactive Relational Aggression with ANT and BOR by gender*.

	Model 1						Model 2						Model 3						Model 4					
Reactive Relational	Male (R^2= <.01)			Female (R^2= .07*)			Male (R^2= .05**)			Female (R^2= .18**)			Male (R^2= .08**)			Female (R^2= .28**)			Male (R^2= .08**)			Female (R^2= .27**)		
Variable	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B
Constant	.07	.08		.42	.24		.12	.08		.27	.23		.09	.08		.50	.23		.07	.08		.56	.21	
Ethnicity	-.11	.10	-.06	-.64	.29	-.26*	-.16	.10	-.08	-.66	.27	-.27*	-.15	.10	-.08	-.65	.26	-.27*	-.14	.10	-.07	-.64	.25	-.26*
BOR							.21	.05	.21**	.33	.11	.33**	.08	.06	.08	.10	.13	.10						
ANT													.23	.06	.23**	.43	.15	.39**	.27	.05	.27**	.50	.12	.45**

*p< .05. **p< .01.

Table A8. *Hierarchal Regression Analyses Predicting Proactive Relational Aggression with ANT and BOR by gender.*

	Model 1						Model 2						Model 3						Model 4					
Proactive Relational	Male (R^2= .02**)			Female (R^2= .14**)			Male (R^2= .05**)			Female (R^2= .19**)			Male (R^2= .10**)			Female (R^2= .30**)			Male (R^2= .10**)			Female (R^2= .30**)		
Variable	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B
Constant	.18	.08		.48	.20		.23	.08		.39	.20		.20	.08		.60	.20		.19	.08		.58	.18	
Ethnicity	-.28	.10	-.14**	-.79	.24	-.38**	-.33	.10	-.16**	-.81	.23	-38**	-.31	.10	-.15**	-.79	.22	-.38**	-.31	.10	-.15**	-.80	.22	-.38**
BOR							.19	.05	.18**	.19	.09	.22*	.04	.06	.04	-.02	.11	-.03						
ANT													.26	.06	.25**	.39	.12	.41**	.28	.05	.28**	.38	.10	.40**

*p< .05. **p< .01.

Table A9. *Hierarchal Regression Analyses Predicting Reactive Overt Aggression with ANT and BOR subscales by gender*

	Model 1						Model 2						Model 3						Model 4					
Reactive Overt	Male (R^2=<.01)			Female (R^2=.02)			Male (R^2=.18**)			Female (R^2=.22**)			Male (R^2=.23**)			Female (R^2=.45**)			Male (R^2=.20**)			Female (R^2=.41**)		
Variable	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B	B	SE (B)	B
Constant	.03	.08		.03	.24		.10	.07		-.02	.23		.12	.07		.14	.21		.09	.07		.13	.19	
Ethnicity	.01	.10	.01	-.31	.29	-.13	-.06	.09	-.03	-.43	.26	-.18	-.15	.09	-.07	-.25	.23	-.11	-.13	.10	-.06	-.19	.23	-.08
Affective Instability (BOR-A)							.21	.06	.21**	.51	.19	.48**	.16	.06	.16**	.12	.19	.11						
Identity Problems (BOR-I)							-.02	.06	-.02	.10	.18	.10	<-.01	.06	<-.01	.22	.16	.22						
Negative Relationships (BOR-N)							.03	.06	.03	-.19	.15	-.18	<-.01	.06	<-.01	-.08	.13	-.08						
Self-Harm (BOR-S)							.26	.06	.26**	-.03	.16	-.03	.13	.07	.13*	-.29	.15	-.31						
Antisocial Behaviors (ANT-A)													.20	.06	.20**	.47	.17	.45**	.29	.06	.29**	.40	.15	.39**
Egocentricity (ANT-E)													-.11	.05	.12*	.47	.16	.36**	-.08	.05	-.09	.49	.15	.37**

Stimulation Seeking (ANT-S)										.18	.06	.19**	-.02	.17	-.02	.26	.06	.26**	-.04	.16	-.04	

*p<.05, **p<.01, †<.06

Table A10. *Hierarchal Regression Analyses Predicting Proactive Overt Aggression with ANT and BOR subscales by gender*

	Model 1						Model 2						Model 3						Model 4					
Proactive Overt	Male (R^2=.01)			Female (R^2=.12**)			Male (R^2=.14**)			Female (R^2=.28**)			Male (R^2=.18**)			Female (R^2=.49**)			Male (R^2=.17**)			Female (R^2=.45**)		
Variable	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B
Constant	.15	.08		.25	.18		.20	.08		.26	.18		.18	.08		.38	.16		.16	.08		.31	.15	
Ethnicity	-.18	.11	-.09	-.66	.21	-.35**	-.25	.10	-.12*	-.75	.20	-.40**	-25	.10	-.12*	-.61	.18	-.33**	-.23	.10	-.11*	-.56	.18	-.30**
Affective Instability (BOR-A)							-16	.06	.16*	.40	.14	.47**	.11	.06	.11	.16	.15	.19						
Identity Problems (BOR-I)							-.02	.06	-.02	.01	.13	.01	.02	.06	.02	.04	.13	.06						
Negative Relationships (BOR-N)							-.01	.06	-.01	-.19	.12	-.23	-.05	.06	-.05	-.12	.10	-.15						
Self-Harm (BOR-S)							.28	.06	.27**	-.01	.12	-.02	.10	.07	.10	-.19	.12	-.25						

Antisocial Behaviors (ANT-A)							.19	.06	.18**	.22	.13	.26	.24	.06	.24**	.22	.11	.27*	
Egocentricity (ANT-E)							.07	.06	.07	.45	.12	.43**	.09	.06	.09	.42	.12	.40**	
Stimulation Seeking (ANT-S)							.11	.06	.11	.03	.13	.03	.16	.06	.16**	-.02	.12	-.02	

*p<.05, **p<.01, †<.06

Table A11. *Hierarchal Regression Analyses Predicting Reactive Relational Aggression with ANT and BOR subscales by gender*

	Model 1						Model 2						Model 3						Model 4					
Reactive Relational	Male (R^2=<.01)			Female (R^2=.07*)			Male (R^2=.07**)			Female (R^2=.23**)			Male (R^2=.09**)			Female (R^2=.42**)			Male (R^2=.08**)			Female (R^2=.39**)		
Variable	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B
Constant	.07	.08		.42	.24		.11	.08		.36	.24		.10	.08		.40	.22		.08	.08		.44	.20	
Ethnicity	-.11	.10	-.06	-.64	.29	-.26*	-.15	.10	-.08	-.73	.27	-.30**	-.16	.10	-.08	-.50	.25	-.21*	-.16	.10	-.08	-.45	24	-.19
Affective Instability (BOR-A)							-.01	.06	-.01	.35	.19	.32	-.04	.06	-.04	.15	.20	.14						

Identity Problems (BOR-I)		-.06	.06	-.06	.15	.18	.14	-.04	.06	-.04	.17	.17	.16				
Negative Relationships (BOR-N)		.11	.06	.10	-.15	.16	-.14	.08	.06	.08	-.10	.14	-.10				
Self-Harm (BOR-S)		.23	.06	.23**	.05	.16	.05	.13	.07	.13	-.09	.16	-.09				
Antisocial Behaviors (ANT-A)								.16	.06	.16*	.24	.18	.23	.19	.06	.20**	.25	.15	.23
Egocentricity (ANT-E)								<-.01	.06	<-.01	.64	.17	.48**	.03	.06	.03	.68	.16	.51**
Stimulation Seeking (ANT-S)								.07	.06	.07	-.22	.18	-.19	.11	.06	.11	-.15	.16	-.13

*p<.05, **p<.01

Table A12. *Hierarchal Regression Analyses Predicting Proactive Relational Aggression with ANT and BOR subscales by gender*

	Model 1						Model 2						Model 3						Model 4					
Proactive Relational	Male (R^2=.02**)			Female (R^2=.14**)			Male (R^2=.08**)			Female (R^2=.28*)			Male (R^2=.10**)			Female (R^2=.40**)			Male (R^2=.10**)			Female (R^2=.37**)		
Variable	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B	B	SE (B)	β	B	SE (B)	B
Constant	.18	.08		.48	.20		.21	.08		.49	.20		.20	.08		.52	.19		.19	.08		.51	.18	
Ethnicity	-.28	.10	-.14**	-.79	.24	-.38**	-.31	.10	-.15**	-.88	.23	-.42**	-.32	.10	-.16**	-.73	.22	-.35**	-.32	.10	-.16**	-.68	.21	-.32**
Affective Instability (BOR-A)							.04	.06	.04	.39	.16	.41*	.01	.07	.01	.27	.18	.29						
Identity Problems (BOR-I)							-.07	.06	-.07	<.01	.15	<.01	-.05	.06	-.05	-.02	.15	-.02						
Negative Relationships (BOR-N)							.03	.07	.03	-.19	.13	-.21	<.01	.07	<.01	-.16	.12	-.17						
Self-Harm (BOR-S)							.25	.06	.24**	.03	.14	.03	.13	.08	.13	-.07	.14	-.08						

Antisocial Behaviors (ANT-A)				.13	.06	.13*	.08	.16	.09	.16	.06	.16**	.17	.13	.18
Egocentricity (ANT-E)				.03	.06	.03	.48	.14	.41**	.06	.06	.06	.47	.14	.40**
Stimulation Seeking (ANT-S)				.09	.07	.08	-.07	.16	-.08	.12	.06	.12*	-.05	.14	-.06

*p<.05, **p<.01

APPENDIX B : PAI-A ANTISOCIAL AND BORDERLINE ITEMS

(Original format)

For each item: F = False ST = Slightly true MT = Mainly true VT = Very true

1.	I've done some things that weren't exactly legal.	F	ST	MT	VT
2.	I've deliberately damaged someone's property.	F	ST	MT	VT
3.	I used to lie a lot to get out of tight situations.	F	ST	MT	VT
4.	I like to see how much I can get away with.	F	ST	MT	VT
5.	I've never been in trouble with the law.	F	ST	MT	VT
6.	I've never taken money or property that wasn't mine.	F	ST	MT	VT
7.	I've borrowed money knowing I wouldn't pay it back.	F	ST	MT	VT
8.	I'll take advantage of others if they leave themselves open to it.	F	ST	MT	VT
9.	I can talk my way out of just about anything.	F	ST	MT	VT
10.	I don't like being tied to one person.	F	ST	MT	VT
11.	I don't like to stay in a relationship very long.	F	ST	MT	VT
12.	When I make a promise, I really don't need to keep it.	F	ST	MT	VT
13.	I get a kick out of doing dangerous things.	F	ST	MT	VT
14.	I do a lot of wild things just for the thrill of it.	F	ST	MT	VT
15.	If I get tired of a place, I just pick up and leave.	F	ST	MT	VT
16.	I like to drive fast.	F	ST	MT	VT
17.	I'm not a person who turns down a dare.	F	ST	MT	VT
18.	I never take risks if I can avoid it.	F	ST	MT	VT
19.	My moods get quite intense.	F	ST	MT	VT
20.	My mood is very steady.	F	ST	MT	VT
21.	I have little control over my anger.	F	ST	MT	VT
22.	I've always been a pretty happy person.	F	ST	MT	VT
23.	I've had times when I was so mad I couldn't do enough to express all my anger.	F	ST	MT	VT
24.	My attitude about myself changes a lot.	F	ST	MT	VT
25.	Sometimes I feel terribly empty inside.	F	ST	MT	VT
26.	I worry a lot about other people leaving me.	F	ST	MT	VT
27.	I can't handle separation from those close to me very well.	F	ST	MT	VT
28.	I don't get bored very easily.	F	ST	MT	VT
29.	I want to let certain people know how much they've hurt me.	F	ST	MT	VT
30.	My relationships have been stormy.	F	ST	MT	VT
31.	People once close to me have let me down.	F	ST	MT	VT
32.	I rarely feel very lonely.	F	ST	MT	VT
33.	I've made some real mistakes in the people I've picked as friends.	F	ST	MT	VT
34.	I sometimes do things so impulsively that I get into trouble.	F	ST	MT	VT
35.	When I'm upset, I typically do something to hurt myself.	F	ST	MT	VT
36.	I'm too impulsive for my own good.	F	ST	MT	VT
37.	I spend money too easily.	F	ST	MT	VT
38.	I'm a reckless person.	F	ST	MT	VT

APPENDIX C : PEER CONFLICT SCALE (YOUTH VERSION)

(Original format)

Name: _____ Age: _____
Date Completed: _____

Instructions: Please read each statement and decide how well it describes you. Mark your answer by circling the appropriate number(0-3) for each statement. Do not leave any statement unrated.

	Not at all true	Somewhat true	Very true	Definitely true
1. I have hurt others to win a game or contest	0	1	2	3
2. I enjoy making fun of others	0	1	2	3
3. When I am teased, I will hurt someone or break something	0	1	2	3
4. Sometimes I gossip about others when I'm angry at them	0	1	2	3
5. I start fights to get what I want	0	1	2	3
6. I deliberately exclude others from my group, even if they haven't done anything to me	0	1	2	3
7. I spread rumors and lies about others when they do something wrong to me	0	1	2	3
8. When someone hurts me, I end up getting into a fight	0	1	2	3
9. I try to make others look bad to get what I want	0	1	2	3
10. When someone upsets me, I tell my friends to stop liking that person	0	1	2	3
11. I threaten others when they do something wrong to me	0	1	2	3

12. When I hurt others, it makes me feel powerful and respected	0	1	2	3
13. I tell others' secrets for things they did to me a while back	0	1	2	3
14. When someone threatens me, I end up getting into a fight	0	1	2	3
15. I make new friends to get back at someone who has made me angry	0	1	2	3
16. I hurt others when I am angry at them	0	1	2	3
17. When others make me mad, I write mean notes about them and pass the notes around	0	1	2	3
18. I threaten others to get what I want	0	1	2	3
19. I gossip about others to become popular	0	1	2	3
20. If others make me mad, I hurt them	0	1	2	3
21. I am deliberately cruel to others, even if they haven't done anything to me	0	1	2	3
22. When I am angry at others, I try to make them look bad	0	1	2	3
23. To get what I want, I try to steal others' friends from them	0	1	2	3
24. I carefully plan out how to hurt others	0	1	2	3
25. When someone makes me mad, I throw things at them	0	1	2	3
26. When I gossip about others, I feel like it makes me popular	0	1	2	3
27. I hurt others for things they did to me a while back	0	1	2	3

28. I enjoy hurting others	0	1	2	3
29. I spread rumors and lies about others to get what I want	0	1	2	3
30. When I have gotten into arguments or physical fights, it is usually because I acted without thinking	0	1	2	3
31. If others make me mad, I tell their secrets	0	1	2	3
32. I ignore or stop talking to others in order to get them to do what I want	0	1	2	3
33. I like to hurt kids smaller than me	0	1	2	3
34. When others make me angry, I try to steal their friends from them	0	1	2	3
35. I threaten others, even if they haven't done anything to me	0	1	2	3
36. When I get angry, I will hurt someone	0	1	2	3
37. I have gotten into fights, even over small insults from others	0	1	2	3
38. When I have started rumors about someone, it is usually because I acted without thinking	0	1	2	3
39. I say mean things about others, even if they haven't done anything to me	0	1	2	3
40. When someone makes me angry, I try to exclude them from my group	0	1	2	3

Unpublished rating scale, Department of Psychology, University of New Orleans
Contact: Paul J. Frick, (pfrick@uno.edu)

APPENDIX D : DEMOGRAPHICS QUESTIONNAIRE

(Original format)

Demographics & Background Information

Gender:

- Male
- Female

Age:

- 16
- 17
- 18
- 19

Ethnicity:

- White/Caucasian
- Black/African-America
- Hispanic/Latino/a
- Asian/Pacific Islander
- American Indian/Alaska Native
- Multiracial
- Other: _____

Place where you lived right before coming to Youth Challenge:

- With both biological (real) parents
- With one biological (real) parent
- With relatives who are not my parents
- With someone who is not related to me
- Other: _____

Who mainly raised you?

- Biological (real) mom
- Biological (real) dad
- Both biological (real) parents
- Someone else: _____

Have you ever been arrested?

- Yes
- No

If yes:

How many times have you been arrested? _____

Age at first arrest? _____

Did you play sports or join school clubs when you were in school?

- Yes
- No

Reason for dropping out of school:

Grades
Need to care for family
Behavior *(*kicked out of school)
Other: _____

The average cadet volunteers approximately 50 hours during their time spent at YCA. If you had a choice, how many hours would you complete during your time in this program? _____

For the following items, please rate the degree to which you would be interested in each of the following community service activities if they were available, with 1 being "very uninterested" and 5 being "very interested"

You may complete 30 hours of community service beyond the required amount. If you complete these additional hours, your name will be made public on the trophy case in the director's office.

You may assist your teacher in cleaning up the classroom for approximately 30 minutes each day for one week. However, you will receive no recognition for doing so.

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