

**PERSONALITY TRAITS, PERSONALITY DISORDERS, AND
AGGRESSION: A COMPARISON OF INTIMATE PARTNER VS. NON-
INTIMATE PARTNER AGGRESSION**

by

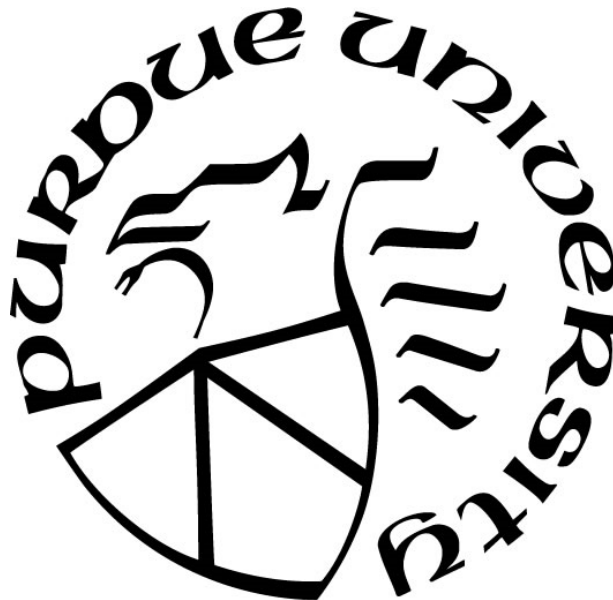
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A Dissertation

Submitted to the Faculty of Purdue University

In Partial Fulfillment of the Requirements for the degree of

Doctor of Philosophy



Department of Psychological Sciences

West Lafayette, Indiana

August 2021

THE PURDUE UNIVERSITY GRADUATE SCHOOL
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TABLE OF CONTENTS

LIST OF TABLES.....	5
ABSTRACT.....	6
INTRODUCTION	7
Personality.....	7
Aggression	8
Examining Personality as a Predictor of Aggressive Behavior	10
Intimate Partner Aggression	12
The Present Study	13
METHOD	17
Procedure	17
Participants.....	18
Measures	20
Validity Checks	20
Demographics Questionnaire.....	20
Revised Conflict Tactics Scale (CTS2)	20
Reactive and Proactive Aggression Questionnaire (RPQ)	21
Crime and Analogous Behavior Scale (CAB).....	21
International Personality Item Pool Representation of the NEO PI-R Short Form (IPIP-NEO SF).....	22
Personality Inventory for DSM-5 (PID-5) - Reduced Item Set.....	22
Structured Clinical Interview for DSM-IV Axis II Personality Disorders Questionnaire (SCID-II-PQ)	22
Elemental Psychopathy Assessment – Super-Short Form (EPA-SSF).....	22
Level of Personality Functioning Scale – Brief Form 2.0 (LPFS-BF 2.0)	23
Statistical Analyses	23
RESULTS	25
Group Differences in Zero-Order Correlations.....	25
Correlations Between FFM Domains, PID-5 Domains, Aggression, and Antisocial Behavior	26
Correlations Between PD Symptom Counts, Aggression, and ASB	34

FFM, PID-5, and PD Symptom Profile Similarities Across Subtypes of Aggression and ASB	36
Hierarchical Regressions With FFM Facets and PID-5 Traits	38
DISCUSSION	53
Limitations and Conclusions.....	59
LIST OF REFERENCES.....	61
APPENDIX A.....	67
APPENDIX B	70
APPENDIX C	73
APPENDIX D.....	75

LIST OF TABLES

Table 1. Demographic Characteristics of Participants ($N = 307$)	19
Table 2. Intercorrelations Between IPIP-NEO FFM Domains and PID-5 Domains	27
Table 3. Intercorrelations Among Aggression and ASB Variables	28
Table 4. Zero-Order Correlation and Profile Similarities Between FFM Facets and Aggression/ASB Outcomes	29
Table 5. Zero-Order Correlations and Profile Similarities Between Reduced PID-5 Facets and Aggression Outcomes	32
Table 6. Zero-Order Correlations and Profile Similarities Between PDs, Psychopathy, and Aggression Outcomes	35
Table 7. Hierarchical Regression Analyses With PDs, FFM Facets, and CTS Physical and Psychological Scales	39
Table 8. Hierarchical Regression Analyses With PDs, FFM Facets, and RPQ Proactive and Reactive Aggression Scales	41
Table 9. Hierarchical Regression Analyses With PDs, FFM Facets, and CAB Antisocial Behavior and Violent Antisocial Behavior Scales.....	43
Table 10. Hierarchical Regression Analyses With PDs, PID-5 Facets, and CTS Physical and Psychological Scales	47
Table 11. Hierarchical Regression Analyses With PDs, PID-5 Facets, and RPQ Proactive and Reactive Aggression Scales	49
Table 12. Hierarchical Regression Analyses With PDs, PID-5 Facets, and CAB Antisocial Behavior and Violent Antisocial Behavior Scales.....	51

ABSTRACT

Both basic personality traits and clinical personality disorders have been studied in the context of a wide range of behaviors, including antisocial behavior and aggression. Although the five-factor model (FFM) has been examined in relation to several types of non-partner aggression, relatively few studies have assessed the relations between FFM traits and intimate partner aggression perpetration. Additionally, some work has suggested that there may be differential personality correlates of intimate partner aggression versus other forms of aggression, but none has directly compared these types of aggression in terms of their personality trait profiles. The present study sought to answer those questions as well as critically evaluate the potential mediating role of basic traits in the relation between personality disorder (PD) symptoms and outcomes related to aggression and antisocial behavior. A total of 307 participants, recruited from Amazon Mechanical Turk (MTurk), completed a number of questionnaires assessing personality traits, PD symptoms, and various types of aggressive and antisocial behavior. Findings suggest that traits related to Agreeableness and Conscientiousness generally demonstrated the strongest and most consistent (negative) relations across all measures of aggression and antisocial behavior; however, Neuroticism-related traits also demonstrated moderate (positive) correlations with certain types of aggression. PD symptoms almost all predicted aggressive and antisocial behavior, and although ASPD and BPD were two of the most robust PD symptom correlates across aggression and antisocial behavior outcomes, they were not always the strongest PD symptom correlate for each behavior. Personality profiles were moderately similar across aggression subtypes, but some showed more convergence than others. Finally, relations between PD symptom counts and aggressive and antisocial behavior were largely accounted for by more basic personality traits.

INTRODUCTION

Personality

Personality refers to a pattern of thoughts, feelings, and behaviors that is manifested by an individual. A great deal of research has been devoted to identifying the structure of basic personality, and much of this work has converged on a five-factor structure, known as the five-factor model of personality (Big Five/FFM¹; Digman, 1990). The FFM was originally derived using a lexical approach, which assumes that personality characteristics that are considered important by a group of people will eventually become part of that group's language and, in turn, will become encoded into the language as single words. As the name would suggest, the FFM consists of five hierarchical trait domains: neuroticism, extraversion, openness, agreeableness, and conscientiousness. Within each of these domains are underlying facets; in the Revised NEO Personality Inventory (NEO-PI-R), each domain has six facets. Although several empirically-derived models have been proposed for understanding the structure and dimensions of basic personality, including the six-factor HEXACO model (Ashton & Lee, 2007) and Eysenck's three-factor model including psychoticism, neuroticism, and extraversion (Eysenck, 1970), there is strong evidence to suggest that all of these models can be represented and understood using the FFM (e.g., O'Connor, 2002).

Within clinical psychology, personality is largely studied in the context of personality disorders (PDs), which are defined as enduring experiences and behaviors that lead to distress or impairment that are characterized by significant interpersonal difficulties (American Psychiatric Association, 2013). PDs are currently represented in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) as ten categorical disorders: paranoid, schizoid, schizotypal, antisocial (ASPD), borderline (BPD), histrionic, narcissistic, avoidant, dependent, and obsessive compulsive (OCPD).

Although PDs are currently treated as categorical diagnoses, there has been growing evidence to suggest that PDs can be conceptualized as dimensional constructs representing configurations of extreme and maladaptive variants of basic personality traits (e.g., Lynam &

¹The lexical tradition typically refers to this as the Big Five model, whereas the questionnaire tradition refers to it as the FFM, especially in the context of the Revised NEO Personality Inventory (Costa & McCrae, 1992). Throughout this paper, I will use FFM to refer to the broader model.

Widiger, 2001; Widiger & Samuel, 2005). For example, using the 30 facets of the FFM, paranoid PD has been conceptualized as a combination of the Angry Hostility facet of Neuroticism (high), Warmth and Gregariousness facets of Extraversion (both low), Actions and Values facets of Openness (both low), and the Trust, Straightforwardness, Altruism, Compliance, and Tendermindedness facets of Agreeableness (all low; Lynam & Widiger, 2001). The dimensional approach to understanding and measuring PDs was more formalized with the addition of the “Alternative DSM-5 Model for Personality Disorders” to Section III of DSM-5 (APA, 2013), which presents emerging measures and models of psychopathology. In the alternative DSM-5 model, PD diagnosis is based on impairment in interpersonal functioning as well as the presence of pathological personality traits. There are 25 of these traits comprising five domains (Negative Affect, Detachment, Antagonism, Disinhibition, and Psychoticism). These domains have largely been shown to map onto the five domains of the FFM (Krueger et al., 2014), although findings have been more mixed with respect to the relation between openness and psychoticism (Widiger & Crego, 2019).

Using such a model to conceptualize PDs addresses a number of concerns that have been raised about the traditional diagnostic system of psychopathology more broadly, such as high comorbidity across disorders, limited diagnostic reliability, heterogeneity within existing diagnoses, and arbitrary cut-offs for meeting diagnostic criteria (Kotov et al., 2017). For example, comorbidity of traditional PD diagnoses may well be explained by shared traits between PDs (Lynam & Widiger, 2001). From the FFM perspective, it is expected that an individual could meet criteria for multiple disorders (e.g., schizoid PD and avoidant PD) to the extent that they have personality traits that are core features of each (e.g., low extraversion). Therefore, conceptualizing PDs as clusters of extreme and maladaptive traits rather than “distinct” categorical diagnoses eliminates the possibility that an individual could be diagnosed with multiple PDs.

Aggression

Human aggression is defined as any behavior intended to harm another individual who is motivated to avoid that harm (Anderson & Bushman, 2002). As in the case of personality, there have also been a number of proposed models for understanding the mechanisms of aggressive behavior. One model that has attempted to integrate components from several domain-specific theories of aggression is the General Aggression Model (GAM; Allen, Anderson, & Bushman,

2018). The GAM posits that aggression occurs in the context of social, cognitive, developmental, and biological factors via both proximate and distal processes. Whereas distal processes represent biological and persistent environmental factors that work together to influence an individual's personality, proximate processes are proposed to occur at a momentary level and deal with an immediate episode in which aggression may or may not occur (e.g., present internal state, cognitive appraisal, other situational variables).

In addition to the GAM, another widely studied explanatory model that has been applied to aggression is a behavioral metatheory called the I³ Model (Finkel, 2014), which posits that an individual behaves in the context of three processes: instigation, impellance, and inhibition. Much like the GAM, the I³ Model includes individual and situational processes that interact to predict how an individual will behave in response to a particular stimulus. Instigation refers to variables specific to a given situation (e.g., another driver hits the individual's car) that may cause an individual to respond in a certain way. Both impellance and inhibition factors represent stable variables or consistent situational variables that either increase (impellance) or decrease (inhibition) the likelihood that an individual will respond to an instigating situation in a certain way. These factors include personality traits (e.g., trait impulsivity), internal states (e.g., fatigue from not sleeping well the night before), and cultural factors/belief systems (e.g., being a pacifist and viewing aggression as morally wrong).

Aggression has also been studied within a broader spectrum of externalizing behaviors, such as substance abuse and other antisocial behavior (ASB), given their high degree of comorbidity as well as evidence suggesting shared etiologic factors (Krueger et al., 2002). Within clinical psychology, factor analytic work has suggested that disorders defined by aggressive and/or antisocial behavior (e.g., ASPD, conduct disorder) tend to overlap with disorders characterized by disinhibition (e.g., substance use disorder); as such, they have been proposed to comprise an externalizing dimension of psychopathology (Kotov et al., 2017). Consistent with the models described above, this evidence supports the conceptualization of human aggression as a set of behaviors that occurs in the context of numerous biological and environmental factors.

Various subtypes of aggressive behavior have been explored in aggression research, despite some debate over whether these distinctions are meaningful (Bushman & Anderson, 2001). One example that has primarily been studied in the context of child aggression is reactive versus proactive aggression, which was first proposed by Dodge and Coie (1987). Reactive aggression

is characterized as behavior that is retaliatory in nature, stemming as a “reaction” to a threat rather than a means of achieving an internally generated goal (Dodge & Coie, 1987). Theoretically, reactive aggression is thought to be an angry response to frustration or provocation (Crick & Dodge, 1996). In contrast, proactive aggression results from the appraisal that aggressive behavior will serve as a mechanism for achieving a positive outcome (e.g., bullying or coercing; Dodge & Coie, 1987). These subtypes of aggression have also been referred to as hostile versus instrumental aggression, with hostile aggression thought to be a “hot-blooded” aggression (i.e., reactive) and instrumental aggression thought to be more “cold-blooded” and calculated (i.e., proactive; Bushman & Anderson, 2001). Although reactive and proactive aggression are highly correlated (e.g., Poulin & Boivin, 2000; Miller & Lynam, 2006), there is evidence to suggest that the primary difference between them is their relation to trait neuroticism (Miller & Lynam, 2006), such that reactive aggression is much more highly correlated with facets of neuroticism than is proactive aggression.

Other areas of aggression research (mostly with respect to intimate partner violence) have studied subtypes of aggressive behavior in terms of how it is expressed (i.e., physically, psychologically, sexually). Evidence suggests that these aggression phenotypes frequently co-occur (Thompson et al., 2006; Coker et al., 2000) and longitudinal work suggests that perpetrating psychological aggression towards an intimate partner makes it more likely that physical aggression will be perpetrated in the future (Murphy & O’Leary, 1989). Thus, although the distinction is built into commonly used measures of aggression (e.g., the Revised Conflict Tactics Scale; Straus et al., 1996), the etiological distinction between them is unclear.

Examining Personality as a Predictor of Aggressive Behavior

Although it is clear that risk factors for aggressive behavior are numerous and complex, there are a number of reasons why personality may be a particularly useful risk factor to study. Theoretically, personality fits well into widely used models of aggression. In the GAM, personality is recognized as a biologically-based individual difference that could place an individual more or less at risk for responding to specific situations in an aggressive way. In the I³ Model, personality serves as both an impelling (e.g., low levels of agreeableness) and inhibitory (e.g., high levels of self-control) factor that is likely to serve as a mechanism for how an individual responds to an instigating situation. With respect to externalizing behaviors more broadly, disinhibitory traits

have been proposed by a number of researchers as a possible underlying etiological factor for ASB and disorders like substance use disorder and conduct disorder that may help to explain their comorbidity (e.g., Krueger et al., 2002). More recently, both antagonistic and disinhibitory traits have been proposed as etiological factors for externalizing behavior and included as domains of externalizing disorders in the Hierarchical Taxonomy Of Psychopathology (Kotov et al., 2017). The goal of the present study is not to test or provide evidentiary support for one model over others; rather, the purpose of describing these models is to provide context for how personality might serve as a mechanism for aggressive behavior in a number of widely used models of aggression.

From an empirical perspective, previous research has shown a robust link between personality traits and aggressive behavior. In a 2011 meta-analysis examining FFM domains and facets as predictors of aggression (broadly defined), Jones and colleagues found significant effect sizes for all five domains, with the largest effects for Neuroticism ($r = .17$), Agreeableness ($r = -.33$), and Conscientiousness ($r = -.18$). At the facet level, all facets of Agreeableness and Conscientiousness were significantly and negatively related to aggression, whereas facets within other domains showed more mixed findings. These findings were supported in an update to this meta-analysis conducted by Vize and colleagues (2018) and are consistent with meta-analytic findings for personality and ASB more broadly, which have implicated low Agreeableness and low Conscientiousness as the strongest and most consistent trait predictors of ASB across models and measures of personality (Miller & Lynam, 2001). Notably, the updated meta-analysis (Vize et al., 2018) went beyond previous work by looking at more specific aggression outcomes (e.g., proactive, reactive, relational, physical) and did not find substantive differences in terms of their personality correlates. Research on PDs has also supported a link between PD symptoms and aggression and/or violence, particularly in the case of ASPD and BPD (Fountoulakis, Leucht & Kaprinis, 2008; Gilbert & Daffern, 2011; Allen & Links, 2012). However, researchers have cautioned that these findings are not always consistent across sample types (Allen & Links, 2012) and that there could be confounding factors within diagnostic criteria as well as with comorbid behaviors such as substance use (Fountoulakis et al., 2008).

Finally, studying personality as a risk factor for aggressive behavior may also provide important implications for violence prevention and intervention. Although there are certainly environmental and contextual factors that influence aggression, personality traits and PDs represent stable, enduring dispositions that may cut across situational contexts. This may put

certain individuals at greater risk for exhibiting aggressive behavior more frequently and have implications for the focus of treatment to mitigate those behaviors. Additionally, the appearance of personality at an early age and its relative stability may help with early identification and prevention efforts before aggressive and violent behavior can become habitual or escalate in severity. Finally, there are empirically supported treatments for individuals who have been diagnosed with PDs or demonstrate sub-clinical levels of personality dysfunction, such as dialectical behavior therapy (DBT; Linehan, 2014) and other types of cognitive behavior therapy (CBT), which could be further leveraged as potential interventions for this population.

Intimate Partner Aggression

One type of aggression that has often been studied independently of other types of aggression and violence is intimate partner aggression (IPA), which is defined as physical, sexual, or psychological harm inflicted by a current or former romantic partner or spouse (Centers for Disease Control and Prevention, 2012). As is the case with non-partner aggression, risk factors are numerous and complicated, spanning contextual, developmental and interpersonal factors (Capaldi et al., 2012). As is also the case with other types of aggression, IPA has been linked to externalizing behaviors more broadly, such as alcohol use (e.g., Eckhardt, Parrott, & Sprunger, 2015), problem gambling (Dowling et al., 2016), and general crime (Moffitt et al., 2000).

IPA has been conceptualized using both the GAM (DeWall, Anderson, & Bushman, 2011) and the I³ Model (Finkel et al., 2012), as well as a number of other theoretical frameworks that are specific to IPA perpetration (Bell & Naugle, 2008). These frameworks have been both sociocultural (e.g., feminist theory, power theory) and individual (e.g., social learning theory, background/situational model, personality typology) in nature. Whereas sociocultural theories have focused on female inequality, power imbalances between sexes, patriarchal societal beliefs, and social acceptance of violence, individual theories have examined variables such as family conflict, modeling, abuse history, and attachment style (Bell & Naugle, 2008).

Within IPA research, personality has been studied most frequently in the context of a personality-typology model (Holtzworth-Munroe & Stuart, 1994; Holtzworth-Munroe et al., 2000). The model, developed using a cluster analytic approach, posits that individuals who engage in IPA perpetration fall into three categories: family-only (FO), dysphoric or borderline (DB), and generally violent and antisocial (GVA) offenders. While FO batterers are thought to be violent

primarily because of situational factors, IPA perpetrators in the DB and GVA subtypes are thought to have two different sets of disordered personality traits. With respect to DB perpetrators, intense emotional lability, fear of rejection, and feelings of jealousy have been proposed as mechanisms that predict moderate-to-severe violence towards partners (Holtzworth-Munroe & Meehan, 2004). According to this theory, DB perpetrators are unlikely to be violent outside of the home. In contrast, GVA perpetrators are thought to be violent in multiple contexts, engaging in moderate to severe levels of marital violence and sometimes evidencing characteristics of ASPD (Holtzworth-Munroe & Meehan, 2004). As such, although these groups are referred to as “personality typologies,” there are also a number of behavioral and contextual factors built into these categories. It is perhaps for this reason that these typologies have been found to be less stable than initially thought (Holtzworth-Munroe & Meehan, 2004).

Other work examining personality as a predictor of IPA perpetration has mostly been conducted in the context of PD diagnoses and symptom counts. On a global PD symptom level, higher self-reported levels of PD symptoms have been found to be related to both verbal and physical aggression towards a partner (South et al., 2008). In addition, meta-analytic work examining BPD and ASPD in the context of IPA have found both to be significant correlates of IPA perpetration (Spencer et al., 2019), which was consistent with a previous review that concluded that individuals meeting criteria for BPD were more likely to commit seriously violent and aggressive acts of IPA (Jackson et al., 2015). A more recent meta-analysis examining all ten PDs as well as psychopathy as predictors of IPA found that nearly all PDs were significantly related to perpetrating IPA, with the exception of histrionic PD and OCPD (Collison & Lynam, in preparation). Although these findings illustrate that general impairment in interpersonal functioning is related to engaging in IPA, the reliance on symptom count and diagnostic categories that are known to be heterogeneous (Kotov et al., 2017) make the specific mechanisms of IPA perpetration unclear.

The Present Study

Given that only a handful of studies have examined any of the FFM domains with respect to IPA (Presaghi et al., 2015; Hellmuth & McNulty, 2008; Ulloa et al., 2016; Varley Thornton, Graham-Kevan, & Archer, 2010), with only two including all five (Ulloa et al., 2016; Varley Thornton, Graham-Kevan, & Archer, 2010), it is clear that more work is needed in this area to

provide important additional information about the specific traits that serve as risk factors for IPA perpetration. As previously mentioned, this will be particularly useful given that much of the research on PDs as predictors of IPA perpetration uses symptom counts, which give us an idea of severity of PD but leave us in the dark as to which symptoms or traits account for the most variance in IPA perpetration. I argue that filling in these gaps with individual traits will paint a more complete picture of which traits are most predictive of IPA perpetration and provide more context and clarity for why certain PDs are more predictive of IPA perpetration than others. This work will also serve to address tautological concerns (e.g., Fountoulakis, Leucht, & Kaprinis, 2008) about the overlap between violent and/or ASB and the diagnostic criteria for certain PDs, some of which include explicitly aggressive or antisocial behavior as symptoms.

A second goal of the proposed study is to examine whether the PD and personality correlates of IPA are the same as those observed for other forms of aggression and ASB. Meta-analyses assessing the relations between personality and aggression (Jones, Miller, & Lynam, 2011; Vize et al., 2019) have examined various types of aggression (e.g., proactive, reactive, general, sexual) in the context of the FFM, but have not included IPA as an outcome of interest. Furthermore, studies that have examined the relations between the FFM and IPA perpetration have found there may be differential predictors of IPA compared to those that have been identified for other types of aggression. For example, one study using a large sample from a national longitudinal study found high Openness, Extraversion, and Neuroticism to be most predictive of IPA perpetration of the FFM domains (Ulloa et al., 2016). Although there may be theoretical reasons for personality correlates to differ between IPA versus non-partner aggression, this is an empirical question. Thus, assessing these types of aggression along with IPA will allow for direct comparison to elucidate whether differences exist between these behaviors in terms of their personality correlates.

Finally, a more exploratory goal of the present study is to examine whether the relations between PD symptoms and aggression outcomes can be explained by more basic personality traits, or by the pathological personality traits proposed in the alternative DSM-5 model of PDs.

A number of hypotheses are proposed for the present study:

Hypothesis 1. FFM domains and pathological personality trait domains outlined in Section III of DSM-5 will be correlated with all types of aggression and antisocial behavior.

Hypothesis 1a. It is expected that at the FFM domain level, low Agreeableness and low Conscientiousness will bear the strongest relations with all types of aggression. This hypothesis is based on robust effect sizes in the literature (Jones et al., 2011) that are expected to replicate.

Hypothesis 1b. It is expected that Neuroticism will be more positively related to reactive aggression and IPA compared to proactive aggression, violent ASB, and general ASB. Reactive aggression has been shown to be more highly correlated with facets of Neuroticism than other types of aggression (Vize et al., 2018) and it is expected that this finding will replicate. Given mixed findings on previous research examining FFM domains and IPA (Ulloa et al., 2016; Varley Thornton et al., 2010), hypotheses regarding trait predictors of IPA are drawn from exploratory hypotheses derived from meta-analytic work at the PD level (Collison & Lynam, in preparation), which suggest that the PDs with the most robust effect sizes are PDs that have been conceptualized as primarily comprising traits related to low Agreeableness, low Conscientiousness, and high Neuroticism (Lynam & Widiger, 2001).

Hypothesis 1c. It is expected that the corresponding pathological personality domains from the alternative DSM-5 model of PDs (i.e., Antagonism, Disinhibition, Negative Affect) to the FFM domains mentioned above will also demonstrate the strongest relations with these outcomes.

Hypothesis 2. Symptom counts of each PD will be positively correlated with all types of aggression and ASB. I will refer to “PD symptoms” and “PD symptom counts” rather than “PDs” because the symptoms will be assessed using a screener questionnaire, which is not appropriate for making diagnoses. This hypothesis is drawn from previous empirical findings as well as consideration of interpersonal dysfunction as primary characteristic of all PDs. Additionally, almost all PDs are thought to be characterized by some degree of trait neuroticism (Lynam & Widiger, 2001), which may also make it more likely that they will be correlated with aggression.

Hypothesis 2a. It is expected that ASPD and BPD symptoms will be the strongest predictors of both partner and non-partner aggression as well as nonviolent ASB given past findings indicating robust effects between ASPD, BPD, and aggressive behavior.

Hypothesis 2b. In terms of IPA and reactive aggression, both of which have been shown to be related to Neuroticism, it is expected that symptoms of PDs with high representations of trait neuroticism (i.e., paranoid, schizotypal, histrionic, narcissistic, avoidant, dependent, and

OCPD) will be significant predictors of both, but there are no specific predictions about which will have the strongest effects.

Hypothesis 3. When comparing across correlational profiles of different types of aggression with basic personality traits, pathological traits from the alternative DSM-5 model of PDs, and PD symptoms, certain types of aggression will have more similar profiles than others.

Hypothesis 3a. It is hypothesized that the personality profile of reactive aggression will most closely match the personality profile of IPA. As stated previously, this prediction is based on the hypothesis that these two types of aggression are more strongly related to Neuroticism than are other types of aggression (such as proactive aggression and violent ASB).

Hypothesis 3b. It is expected that the personality profiles of proactive aggression, violent ASB and general ASB will be most similar to each other given previous work suggesting that these types of externalizing behavior are highly comorbid.

Hypothesis 4. It is hypothesized that the effects of PD symptoms on all aggression outcomes will be substantially reduced when basic traits that are proposed to comprise those PDs are taken into account.

Hypothesis 4a. It is predicted that the effects of PD symptoms on aggression outcomes will be even more diminished when pathological traits from the alternative DSM-5 model of PDs that are proposed to comprise those PDs are taken into account. I expect pathological traits to explain more variance in the PD symptom—outcome relations compared to basic traits because the pathological traits include more impairment and dysfunction within them.

METHOD

Procedure

The study was conducted using Amazon Mechanical Turk (MTurk), a crowd-sourcing platform for data collection. First, a screening survey was administered that included ten items assessing various demographic characteristics (e.g., gender, ethnicity, age, relationship status), as well as a free response question that served as a validity check (see below). The screening survey was administered to MTurk Workers in batches of 200 until 300 participants had taken the full survey and provided valid data. Eligible participants were English-speaking, located in the United States, age 18 or older, passed the validity check, and endorsed either of the following relationship statuses: currently in a romantic relationship that has lasted more than three months, or not currently in a romantic relationship but had been in one that lasted more than three months in the previous year. For the screener, all participants (regardless of eligibility or response validity) were compensated \$0.25 for their responses.

Eligible MTurk Workers were assigned a code that allowed them to view and complete the second HIT (task in MTurk), which included the rest of the study measures. In addition to being assigned the code in MTurk, each eligible Worker was sent a bonus payment through MTurk of \$0.25, along with a message informing them of their eligibility for the full survey and instructions for how to access the HIT on MTurk. After being informed of confidentiality procedures, risks, compensation, and what is required to participate in the study, participants had the option of accepting the HIT or declining to participate. If they chose to participate in the study, they were directed to a Qualtrics survey and completed several questionnaires (described in detail below) that were expected to take approximately 45 minutes total. At the end of the survey, they were given a randomly generated code to enter into MTurk indicating that they had completed the survey. Data was screened using multiple validity checks (described below) and any HITs that failed one or more validity check was rejected from the study, which resulted in that participant not getting paid. All participants who provided complete and valid data were compensated \$3.00 for their time. All compensation guidelines were explicitly outlined in the consent form and in the HIT description on MTurk and all procedures were approved by the Institutional Review Board at Purdue University.

Participants

The final sample size consisted of 307 participants with complete, valid data on the full survey and who were able to be connected to their initial pre-screener demographic data. The sample was 54.7% female and 82.1% White, with a mean age of 39.42. Additional demographic information is provided in Table 1. A total of 800 participants were initially screened for inclusion in the study (in four batches of 200). Of those 800 who completed the pre-screen, 53 provided invalid responses to the free-text validity item and 250 were ineligible based on relationship status, which resulted in a pool of 497 eligible Workers that were followed up with for participation in the full study. Of these 497, 396 took the full survey after receiving bonus messages with instructions for how to access the survey in MTurk. After eliminating participants who responded in under ten minutes, endorsed 75% or more of the same response on a personality measure included in the study, failed an attention check, or failed one of two validity scales, 327 participants remained. Full survey data for an additional 20 participants could not be linked to prescreen data including demographic information, which resulted in a final sample size of 307.

Meta-analytic findings regarding the average effect sizes between FFM personality traits of interest (Agreeableness, Conscientiousness, and Neuroticism) and aggression have found r s ranging from .17 - .33 (Jones, Miller & Lynam, 2011). PDs at the global symptom level and IPA perpetration have been found to relate to one another at effect sizes ranging from $r = .18$ to $r = .28$ (Collison & Lynam, in preparation). As such, a preliminary power analysis was conducted using the lowest of those effect sizes ($r = .17$) to determine how many participants would need to be recruited in order to detect the correlational effects of interest. For 80% power and a two-tailed alpha of .05, the recommended sample size is 269. Additionally, previous research by Schönbrodt & Perugini (2013) has found correlations to stabilize at $N = 250$. With respect to the regression analyses used in the present study, an additional power analysis for a linear multiple regression, fixed model, R^2 increase was calculated using effect sizes obtained from previous research conducting a similar analysis (Sherman, Lynam, & Heyde, 2014). Using the same parameters as above (80% power, two-tailed alpha of .05), the recommended sample size was 133 given the large estimated effect sizes. Thus, the sample size yielded in the present study appears to be adequate to test the research questions of interest.

Table 1. Demographic Characteristics of Participants ($N = 307$)

	Prevalence in Sample (%)
Gender	54.7% Female
Sexuality	91.5% Heterosexual
Ethnicity	
Asian/Pacific Islander	6.8%
Black/African American	4.6%
Hispanic/Latino	3.9%
Native American/American Indian	1.0%
Other	1.6%
White	82.1%
Age, M(SD)	39.42 (11.69)
Relationship Status	91.9% Current Relationship
Education	89.3% Some College or More
Employment	82.4% Employed
Psychological IPA (Past Year)	79.4%
Physical IPA (Past Year)	15.3%
Arrest History	15.6%
Conviction History	9.1%
Psychotherapy History	36.2%

Note. IPA = Intimate Partner Aggression.

Measures

Validity Checks

As part of the eligibility screening questionnaire, participants were given a text box and asked to answer the question, “What are the steps to taking a shower?” following recommendations put forth by Hauser, Paolacci and Chandler (in press) to filter out participants who may not be English speakers or are non-human responders (i.e., bots). In the full survey, two validity scales that were developed for the short form of the Elemental Psychopathy Assessment (EPA; Lynam et al., 2013) were administered as validity checks. Each validity scale includes eight items. The first assesses infrequency (i.e., “I never speak to anyone during the day”), and the second assesses virtue (i.e. overly positive self-presentation). Failing four or more of the items on either scale resulted in “failing” that validity scale and being excluded from the study. In addition, eight attention check items (e.g., “Please select Strongly Disagree”) were included throughout the study. Failing three or more attention check items resulted in exclusion from the study.

Demographics Questionnaire

The demographics questionnaire asked about gender, age, ethnicity, level of education, employment status, relationship status (not currently in a romantic relationship and have not been in the past year; not currently in a romantic relationship but have been in a romantic relationship in the past year that lasted three months or less; not currently in a romantic relationship but have been in a romantic relationship in the past year that lasted more than three months; currently in a romantic relationship that has lasted three months or less; currently in a romantic relationship that has lasted more than three months) and whether or not the individual had ever been arrested, convicted of a crime, or received psychotherapy as an adult.

Revised Conflict Tactics Scale (CTS2)

The CTS2 (Straus et al., 1996) is a 39-item measure of intimate partner violence perpetration. The scale is divided into five subscales: physical assault (12 items), psychological aggression (eight items), negotiation (six items), injury (six items), and sexual coercion (seven

items). For the most part, reliability of the CTS2 scales in the present study were good, with Cronbach's alpha ranging from .65 to .86; however, reliability for the sexual coercion scale was poor ($\alpha = .27$). Thus, although the scale was still included in some of the analyses presented in this paper, findings should be interpreted with caution.

Reactive and Proactive Aggression Questionnaire (RPQ)

The RPQ (Raine et al., 2006) is a 23-item self-report measure of two aggression scales: Proactive and Reactive. The Proactive Aggression scale consists of a total score for 12 items and the Reactive Aggression scale consists of a total score for the remaining 11 items. Reliability was strong for both the Proactive ($\alpha = .78$) and Reactive ($\alpha = .85$) scales in the present study.

Crime and Analogous Behavior Scale (CAB)

The CAB (Miller & Lynam, 2003) is a 55-item self-report measure of a variety of externalizing behaviors, including ASB, substance abuse, intimate partner violence, and gambling. The CAB yields five composite variables: alcohol/drug use, property crime/delinquency, violent crime/delinquency, total crime/delinquency, and risky sexual behavior. The scales used in the present study were a violent crime/delinquency and total crime/delinquency, which were referred to as "violent behavior" and "antisocial behavior," respectively. While the antisocial behavior scale demonstrated good reliability ($\alpha = .73$), the violent behavior scale showed poor reliability ($\alpha = .43$). Thus, although the scale was still included in some of the analyses presented in this paper, findings should be interpreted with caution.²

²Although Cronbach's alpha coefficients served as indicators of reliability for the CAB, this may not be the most appropriate reliability index for this type of scale (i.e., a frequency count of a variety of behaviors). For such a scale, we would expect that test-retest reliability would be a more appropriate reliability index; however, this data was not collected as part of the present study. As such, we present alpha here as an estimate of its internal consistency to approximate its reliability. The same may be the case for the CTS2; however, past assessments of its psychometric properties have utilized Cronbach's alphas as reliability estimates (Straus et al., 1996). Therefore we present them here as a point of comparison to previous research on the CTS2.

International Personality Item Pool Representation of the NEO PI-R Short Form (IPIP-NEO SF)

The short form of the IPIP-NEO (Maples et al., 2014) is comprised of 120 items that measure the thirty facets of the five domains (Neuroticism, Openness, Conscientiousness, Agreeableness, and Extraversion) of the FFM. In the current study, reliability within all five domains was good, with Cronbach's alpha ranging from .87 - .95.

Personality Inventory for DSM-5 (PID-5) - Reduced Item Set

The PID-5 (Krueger et al., 2012) is 220-item measure comprised of 25 non-overlapping trait subscales that load onto five higher-order factors (Negative Affect, Detachment, Antagonism, Disinhibition, and Psychoticism). For the present study, a more recently developed "reduced" item set of the PID-5 was used, which is comprised of 100 items and is shown to have good reliability and validity (Maples et al., 2015). Cronbach's alpha for each of the five higher-order factors in the present study ranged from .83 to .94.

Structured Clinical Interview for DSM-IV Axis II Personality Disorders Questionnaire (SCID-II-PQ)

The SCID-II-PQ (First et al., 2002) consists of 119 Yes/No questions assessing DSM-IV criteria for Axis II personality disorders. The questionnaire serves as a screener for the SCID-II structured clinical interview but has been used for research purposes as a self-report indicator of personality disorder symptoms (e.g., Germans, Van Heck, & Hodiament, 2012). Cronbach's alpha coefficients for each of the PD scales ranged from .61 to .85.

Elemental Psychopathy Assessment – Super-Short Form (EPA-SSF)

The EPA-SSF (Collison et al., 2016) is an 18-item scale measure of psychopathy that was developed based on extreme and maladaptive variants of FFM facets that are thought to be characteristic of psychopathy. The items comprise three broader factors that summarize to a total score: Antagonism, Disinhibition, and Emotional Stability. In the current study, the three factors demonstrated good reliability, with Cronbach's alpha ranging from .72 to .76.

Level of Personality Functioning Scale – Brief Form 2.0 (LPFS-BF 2.0)

The LPFS-BF 2.0 (Bach & Hutsebaut, 2018) is a 12-item self-report measure designed to measure underlying impairment related to 12 features of personality functioning outlined in DSM-5 (APA, 2013). The measure has been used to assess severity of personality dysfunction and was developed as an assessment of impairment to be used with personality trait measures such as the PID-5. The LPFS-BF 2.0 demonstrated good reliability ($\alpha = .91$); however, although this measure was administered along with the other measures described above, only the PID-5 and not the LPFS was included in the principal analyses of the present study.

Statistical Analyses

Participants were excluded from the study if they failed to pass attention checks or validity checks, completed the study in under 10 minutes, endorsed 75% or more of the same response on a personality measure included in the study, or if they provided a response to a free-response question (“What are the steps to taking a shower?”) that clearly indicated that they were not paying attention to the question.

Scores for each of the PDs were calculated from the SCID-II-PQ as continuous symptom counts. Variables for each of the FFM domains and the 30 facets underlying the FFM were calculated from the IPIP-NEO SF as continuous mean scores. Additionally, variables for each of the five domains and 25 subscales assessed by the PID-5 were scored as continuous mean scores. In terms of aggression outcomes, each subscale of the CTS2, RPQ, and CAB were scored and treated as unique, continuous variables.

Zero-order correlations were calculated between all variables included in the present study. This allowed for the examination of the degree to which basic traits and PD symptoms were related to each aggression outcome, as well as the extent to which the different aggression outcomes are correlated with one another. In order to compare the basic personality trait predictors of each type of aggression or ASB at the facet level, intraclass correlations examining the similarity of their FFM correlational profiles were conducted. Similar procedures were followed for the PID-5 facets and for the PD scores calculated from the SCID-II-PQ in order to examine the similarity between the PD profiles of each type of aggression.

Additionally, hierarchical regression models were conducted in order to examine whether the variance in an aggression outcome that is accounted for by a PD can be explained by more basic traits that have been previously proposed as “trait profiles” of that PD. These regression models were conducted using FFM facets, as well as PID-5 traits. FFM trait profiles were taken from previous expert ratings of traits that correspond with each PD (Lynam & Widiger, 2001). PID-5 traits were chosen based on which traits were assigned to each PD by the DSM-5 Personality and Personality Disorders Work Group (Samuel et al., 2012). Models were examined for the CTS Physical and Psychological scales, RPQ Proactive and Reactive scales, and for CAB Antisocial Behavior and Violent Behavior scales, for each PD. For example, BPD symptoms predicting reactive aggression constituted one model. In step one, reactive aggression was regressed onto BPD symptom count. In step two, FFM facets which have been previously suggested as characteristic of BPD (Lynam & Widiger, 2001) were added to the model to examine the extent to which the squared semi-partial correlation (i.e., unique contribution) of BPD symptom count was reduced. In step three, the remaining FFM facets were added to the model to ascertain how much variance is additionally accounted for by other basic traits.

An important note is that given the large number of comparisons examined in the present study, statistical significance was interpreted only for effect sizes with p -values less than .01.

RESULTS

Group Differences in Zero-Order Correlations

Zero-order correlations were examined separately for men and women to determine whether it was appropriate to conduct analyses at the overall sample level or if it was necessary to analyze data separately by gender. These correlations and profile similarities for the FFM, PID-5, and PD symptoms are presented separately for men and women in Appendices A - C. Of the 280 tests for correlations with the FFM and aggression/ASB outcomes (30 FFM facets and five domain scores each correlated with eight aggression and ASB variables), eight effect sizes differed for men and women using an alpha of .01.³ This rate (2.9%) is not much greater than would be expected of differences due to random error or chance. Correlations between PD symptoms and aggressive and antisocial behavior were also largely the same across men and women, with four out of 128 tests (3.9%) differing significantly.⁴ For correlations between the PID-5 facets and factor scores and aggression/ASB outcomes, effects were slightly more divergent across gender. Across a total of 240 comparisons (25 traits, five domain scores, and eight aggression/ASB outcomes), 22 differed significantly for men and women.⁵ Because alpha was set at .01 for detecting significant effects, this is higher than the number of significant differences that would be expected by chance. Additionally, several of the profile similarities differed significantly across

³Men demonstrated a significantly stronger negative correlation between Conscientiousness and psychological IPA ($r = -.38$) compared to women ($r = -.08$). At the facet level, men demonstrated stronger correlations between the self-consciousness facet of Neuroticism ($r = .34$), the competence facet of Conscientiousness ($r = -.30$) and the self-discipline facet of Conscientiousness ($r = -.33$) and psychological IPA compared to women ($r = -.04$, $r = .02$, and $r = .01$, respectively). Men also demonstrated stronger relations between physical IPA and the straightforwardness facet of Agreeableness ($r = 0.28$, compared to $.01$), altruism facet of Agreeableness ($r = -.38$, compared to $-.07$), and dutifulness facet of Conscientiousness ($r = -.37$, compared to $-.10$). Men and women also demonstrated opposing correlations with the modesty facet of Agreeableness, men with a negative correlation ($r = -.16$) and women with a positive one ($r = .17$).

⁴Exceptions were ASPD symptoms, for which women demonstrated a higher correlation with physical IPA ($r = .46$, compared to $r = .12$) and psychological IPA ($r = .45$ compared to $r = .04$); histrionic PD, for which men demonstrated a higher correlation with physical IPA ($r = .30$) than women ($r = .02$); and avoidant PD, for which women demonstrated a positive relation with violent ASB ($r = .16$) and men demonstrated a negative correlation with violent ASB ($r = -.14$).

⁵Men demonstrated higher positive correlations between Antagonism and physical IPA ($r = .38$) and proactive aggression ($r = .54$) compared to women ($r = .02$ and $.23$, respectively). Men also had stronger positive relations between Disinhibition and psychological IPA ($r = .43$, compared to $r = .12$) and Detachment and injurious IPA ($r = .33$, compared to $r = .07$). Women, on the other hand, demonstrated a higher correlation between Negative Affect and violent ASB ($r = .23$) compared to men ($r = -.05$). At the trait level, most differences between men and women occurred in the Antagonism and Disinhibition domains, with stronger correlations for men compared to women.

men and women. However, given that only 5.2% of the effect sizes across all personality measures and aggression outcomes differed by gender, and in an effort to maintain adequate statistical power, analyses were conducted for the overall sample collapsed across gender.

Zero-order correlations were also examined separately by sexual orientation. Given the small number of participants identifying as either homosexual or bisexual (26 participants in total), these participants were collapsed into one group and their correlations were compared to the correlations for participants identifying as heterosexual. Notably, none of the participants who identified as either homosexual or bisexual endorsed sexual IPA; as such, correlations for this outcome could not be compared. Across a total of 574 correlations between FFM, PID-5, PD symptoms, and aggression/ASB outcomes, 22 (3.8%) differed significantly ($p < .01$) from each other. Given the largely consistent relations across groups, and the small sample size in the homosexual and bisexual group, analyses were conducted for the overall sample collapsed across sexual orientation.

Correlations Between FFM Domains, PID-5 Domains, Aggression, and Antisocial Behavior

Zero-order correlations between FFM domains and the five higher-order PID-5 factors (Table 2) indicated moderate-to-high convergence between like domains (e.g., for PID-5 Negative Affect and IPIP Neuroticism, $r = .79$), with the exception of PID-5 Psychoticism and IPIP Openness ($r = .19$). Within the IPIP, inter-correlations between the FFM factors ranged from $-.68$ to $.47$, with the strongest negative relation between Neuroticism and Extraversion and the strongest positive relation between Extraversion and Conscientiousness. Inter-correlations between the five PID-5 domains ranged from $.29$ to $.63$, with the strongest relation between Negative Affect and Detachment and the weakest relations between Antagonism and Negative Affect, and Antagonism and Detachment (both $rs = .29$).

Table 2. Intercorrelations Between IPIP-NEO FFM Domains and PID-5 Domains

	IPIP N	IPIP E	IPIP O	IPIP A	IPIP C	PID-5 NA	PID-5 DET	PID-5 PSYC	PID-5 ANT	PID-5 DIS
IPIP N										
IPIP E	-.68*									
IPIP O	.08	.14								
IPIP A	-.28*	.11	.09							
IPIP C	-.62*	.47*	-.20*	.31*						
PID-5 NA	.79*	-.45*	.16*	-.20*	-.47*					
PID-5 DET	.68*	-.56*	.08	-.39*	-.46*	.63*				
PID-5 PSYC	.39*	-.14	.19*	-.40*	-.42*	.51*	.58*			
PID-5 ANT	.13	.18*	.06	-.66*	-.21*	.29*	.29*	.52*		
PID-5 DIS	.33*	-.13	.18*	-.29*	-.72*	.37*	.34*	.51*	.38*	

Note. N = Neuroticism; E = Extraversion; O = Openness; A = Agreeableness; C = Conscientiousness; NA = Negative Affect; DET = Detachment; PSYC = Psychoticism; ANT = Antagonism; DIS = Disinhibition.

Zero-order correlations between aggression and ASB outcomes (Table 3) indicated mostly moderate-to-high correlations between subtypes of aggression within a given scale, with RPQ Reactive and Proactive aggression correlating at .59, CAB Antisocial Behavior and Violent Behavior scales correlating at .74, and inter-correlations ranging from .16 to .71 on the CTS2. In general, the Sexual Coercion scale of the CTS2 demonstrated the weakest correlations across both aggression and personality measures. With the exception of CTS Sexual Coercion ($r = .09$), RPQ Proactive Aggression showed moderate correlations with CTS2 subscales, ranging from .27 to .32. Similar effects were found for RPQ Reactive Aggression and CTS2 subscales, with r s ranging from .21 to .42 for the Physical, Psychological, and Injury subscales and $r = .10$ for the Sexual Coercion subscale. The CAB subscales demonstrated similar relations as the RPQ to CTS Physical and CTS Psychological subscales, but showed the strongest relations with the CTS Injury subscale, $r = .51$ and $r = .47$ for the CAB Antisocial Behavior and CAB Violent Behavior subscales, respectively. Although not within the scope of the present paper, zero-order correlations between perpetration of IPA and experiencing IPA are presented in Appendix D.

Table 3. Intercorrelations Among Aggression and ASB Variables

	CTS Psych	CTS Physical	CTS Sexual	CTS Injury	RPQ Proactive	RPQ Reactive	CAB ASB	CAB Viol ASB
CTS Psych	—							
CTS Physical	.54*	—						
CTS Sexual	.18*	.18*	—					
CTS Injury	.41*	.71*	.16	—				
RPQ Proactive	.30*	.32*	.09	.27*	—			
RPQ Reactive	.42*	.27*	0.10	.21*	.59*	—		
CAB ASB	.26*	.16*	-.02	.20*	.51*	.46*	—	
CAB Viol ASB	.14	.17*	.06	.23*	.47*	.37*	.74*	—

Note. CTS = Conflict Tactics Scale – 2; Psych = Psychological Aggression; Phys = Physical Aggression; RPQ = Reactive and Proactive Aggression Questionnaire; CAB = Crime and Analogous Behavior Scale; ASB = Antisocial Behavior; Viol. = Violent Behavior.

* $p < .01$.

The Agreeableness and Conscientiousness domains of the IPIP generally demonstrated the strongest and most consistent (negative) relations across all measures of aggression and ASB (Table 4). One exception was CTS Sexual Coercion, which bore the strongest correlation with Openness ($r = -.12$), and CAB Violent Behavior, which was uncorrelated with Conscientiousness ($r = -.04$). Across the Physical, Psychological, and Injury scales of the CTS2, as well as across both RPQ scales, Neuroticism demonstrated moderate and positive correlations, ranging from .15 to .31. Neuroticism was most strongly correlated with the CTS Psychological scale ($r = .26$) and RPQ Reactive Aggression ($r = .31$).

Table 4. Zero-Order Correlation and Profile Similarities Between FFM Facets and Aggression/ASB Outcomes

	CTS Psych	CTS Phys	CTS Sexual	CTS Injury	RPQ Pro	RPQ React	CAB ASB	CAB Viol.	Avg. <i>rs</i>
Neuroticism	.26*	.18*	-.01	.15	.15*	.31*	.09	-.01	.14
N1: Anxiety	.24*	.13	-.01	.09	.08	.25*	.02	-.06	.09
N2: Anger	.35*	.17*	.06	.15*	.26*	.44*	.16*	.11	.22
N3: Depression	.23*	.20*	-.04	.13	.15*	.27*	.12	.04	.14
N4: Self-consciousness	.14	.10	-.07	.10	-.02	.08	-.10	-.20*	0
N5: Impulsiveness	.14	.13	.03	.15	.17*	.27*	.17*	.08	.06
N6: Vulnerability	.15	.11	-.05	.10	.08	.17*	.01	-.06	.14
Extraversion	-.12	-.06	.07	-.06	-.01	-.10	.02	.10	-.02
E1: Warmth	-.19	-.14	.01	.11	-.11	-.20*	-.08	.01	-.07
E2: Gregariousness	-.11	-.02	.10	-.05	.04	-.08	.06	.07	0
E3: Assertiveness	-.06	-.03	.06	-.02	.07	.04	.05	.16*	.03
E4: Activity level	.02	.03	.01	.02	-.07	-.05	.01	.11	.01
E5: Excitement-seeking	.06	.06	.11	.03	.19*	.11	.16*	.18*	.11
E6: Cheerfulness	-.19*	-.18*	.02	.14	-.18*	-.25*	-.15	-.09	-.11
Openness	.01	-.02	-.12	-.03	.10	.04	.19*	.11	.04
O1: Imagination	.13	.09	.02	.09	.15*	.14	.21*	.15*	.12
O2: Artistic interests	-.03	-.04	-.10	-.03	.01	-.06	.06	.04	-.02
O3: Emotionality	.07	-.03	-.03	-.05	.01	.09	0	-.13*	-.01
O4: Adventurousness	-.07	-.03	-.09	-.04	.06	-.07	.10	.09	-.01
O5: Intellect	-.05	-.12	-.10	.12	.06	-.02	.16*	.16*	.03
O6: Values	-.02	.05	-.15	.04	.08	.07	.17*	.08	.04
Agreeableness	-.24*	-.22*	-.11	-.18	-.42*	-.37*	-.25*	-.23	-.26
A1: Trust	-.21*	-.11	.04	-.06	-.27*	-.30*	-.16*	-.17*	-.16
A2: Straightforward	-.20*	-.17*	-.07	-.13	-.39*	-.30*	-.32*	-.21*	-.23

Table 4. continued

	CTS Psych	CTS Phys	CTS Sexual	CTS Injury	RPQ Pro	RPQ React	CAB ASB	CAB Viol.	Avg. <i>rs</i>
A3: Altruism	-.15*	-.22*	0	-.23	-.20*	-.22*	-.13	-.05	-.15
A4: Compliance	-.35*	-.28*	-.18*	-.18	-.49*	-.50*	-.26*	-.30*	-.32
A5: Modesty	.02	-.04	-.14	-.10	-.17*	-.06	-.05	-.09	-.08
A6: Tendermindedness	-.07	-.07	-.07	-.04	-.16*	-.10	-.09	-.09	-.09
Conscientiousness	-.19*	-.22*	.02	-.19*	-.24*	-.20*	-.17*	-.04	-.15
C1: Competence	-.10	-.16*	0	-.17	-.14	-.12	-.02	.08	-.08
C2: Order	-.14	-.12	.06	-.10	-.10	-.12	-.08	-.02	-.08
C3: Dutifulness	-.21*	-.25*	.02	-.18*	-.29*	-.23*	-.20*	-.02	-.17
C4: Achievement	-.06	-.14	.01	-.10	-.15	-.04	-.14	-.02	-.08
C5: Self-discipline	-.12	-.15	.02	-.15*	-.19*	-.16*	-.14	-.02	-.11
C6: Deliberation	-.25*	-.23*	-.03	-.18*	-.27*	-.26*	-.24*	-.16*	-.20
Profile Similarities									
CTS Psych	0.90								
CTS Sexual	0.10	0.10							
CTS Injury	0.81	0.95	0.11						
RPQ Pro	0.82	0.81	0.18	0.71					
RPQ React	0.94	0.83	0.14	0.73	0.91				
CAB ASB	0.70	0.74	0.13	0.66	0.88	0.74			
CAB Viol.	0.38	0.39	0.35	0.33	0.65	0.47	0.81		

Note. CTS = Conflict Tactics Scale – 2; Psych = Psychological Aggression; Phys = Physical Aggression; RPQ = Reactive and Proactive Aggression Questionnaire; CAB = Crime and Analogous Behavior Scale; ASB = Antisocial Behavior; Viol. = Violent Behavior.

* $p < .01$.

Steiger's (1980) test to compare dependent correlations was used to determine whether Agreeableness, Conscientiousness, and Neuroticism differed in terms of the strengths of their relations with aggression and ASB outcomes, and to determine whether Neuroticism differed in its relations to various types of aggressive and antisocial behavior. Agreeableness had significantly stronger (negative) relations to proactive aggression and violent ASB compared to Neuroticism. Agreeableness also showed significantly stronger negative relations to proactive aggression, reactive aggression, and violent ASB compared to Conscientiousness. Neuroticism and Conscientiousness did not differ in terms of how strongly they were correlated with aggressive and antisocial behavior. In terms of differential relations Neuroticism demonstrated across aggression and ASB, Neuroticism was more strongly related to reactive aggression compared to proactive aggression and both types of ASB, and more strongly related to psychological IPA than both types of ASB. Additionally, Neuroticism was more strongly related to physical IPA than violent ASB. Neuroticism was also positively related to proactive aggression and its relation to proactive aggression did not differ significantly compared to physical and psychological IPA.

With the exception of CTS Sexual Coercion, all five higher-order factors of the PID-5 were correlated with all measures of aggression, with r s ranging from .15 to .46 (Table 5). CTS Sexual Coercion was significantly correlated with only one PID-5 domain, Antagonism ($r = .20$). The CAB Antisocial Behavior scale was correlated with all PID-5 domains except for Negative Affect, whereas the CAB Violent Behavior scale was only correlated with Psychoticism ($r = .17$) and Antagonism ($r = .20$). Steiger's (1980) tests were conducted to compare the relative degree to which Negative Affect, Disinhibition, and Antagonism correlated with aggressive and antisocial behavior. Compared to Negative Affect, Antagonism demonstrated significantly stronger correlations with sexual IPA, proactive aggression, and both ASB scales. Also in comparison with Negative Affect, Disinhibition was more strongly correlated with proactive aggression; however, Negative Affect was more strongly correlated with reactive aggression compared to Disinhibition. Finally, Antagonism and Disinhibition differed significantly in terms of their relations such that Antagonism was more strongly related to proactive and reactive aggression, whereas Disinhibition was more strongly related to injurious IPA. When the subtypes of aggression and ASB were compared in terms of their relations to Negative Affect, Negative Affect demonstrated significantly stronger relations to psychological IPA and reactive aggression than it did with

Table 5. Zero-Order Correlations and Profile Similarities Between Reduced PID-5 Facets and Aggression Outcomes

	CTS Psych	CTS Phys	CTS Sexual	CTS Injury	RPQ Pro	RPQ React	CAB ASB	CAB Viol.	Avg. <i>rs</i>
Negative Affectivity	.33*	.22*	.03	.17*	.16*	.33*	.08	0	.17
Anxiousness	.28*	.14	-.04	.12	.12	.29*	.12	.04	.14
Emotional lability	.31*	.24*	.04	.15*	.23*	.30*	.10	0	.17
Hostility	.40*	.21*	.09	.19	.34*	.49*	.19*	.13	.26
Perseveration	.35*	.27*	.06	.21*	.22*	.36*	.12	.02	.20
(Lack of) Restricted affect	-.14	-.18*	-.06	-.14	-.19*	-.17*	-.16*	-.16*	-.15
Separation insecurity	.20*	.20*	.09	.14	.09	.17*	.01	.07	.12
Submissiveness	.15*	.14	.01	.10	-.02	0.10	-.02	-.11	.04
Detachment	.30*	.27*	.05	.20*	.24*	.32*	.15*	.08	.20
Anhedonia	.27*	.23*	.06	.15*	.18*	.28*	.13	.06	.17
Depressivity	.20*	.20*	.07	.19*	.20*	.27*	.13	.07	.17
Intimacy avoidance	.25*	.22*	0	.19*	.15*	.18*	.06	.02	.13
Suspiciousness	.30*	.31*	.14	.21*	.32*	.31*	.16*	.16*	.24
Withdrawal	.24*	.15*	-.05	.11	.17*	.28*	.16*	.05	.14
Psychoticism	.27*	.30*	.07	.20*	.36*	.35*	.22*	.17*	.24
Eccentricity	.22*	.19*	-.02	.16*	.30*	.33*	.24*	.17*	.20
Perceptual dysregulation	.20*	.32*	.18*	.20*	.30*	.24*	.06	.06	.20
Unusual beliefs and experiences	.28*	.31*	.07	.16*	.30*	.28*	.20*	.17*	.22
Antagonism	.27*	.26*	.20*	.21*	.46*	.37*	.25*	.20*	.28
Attention-seeking	0.11	.13	.18*	.12	.18*	.16*	.10	.14	.14
Callousness	.28*	.31*	.20*	.26*	.42*	.34*	.20*	.12	.27
Deceitfulness	.26*	.20*	.07	.14	.46*	.33*	.29*	.14	.24
Grandiosity	.20*	.24*	.23*	.21*	.36*	.29*	.13	.16*	.23

Table 5. continued

	CTS Psych	CTS Phys	CTS Sexual	CTS Injury	RPQ Pro	RPQ React	CAB ASB	CAB Viol.	Avg. <i>rs</i>
Disinhibition	.22*	.30*	.11	.25*	.32*	.15*	.19*	.11	.21
Manipulativeness	.24*	.16*	.12	.11	.41*	.35*	.29*	.20*	.24
Distractibility	.24*	.23*	.02	.19*	.21*	.20*	.09	.02	.15
Impulsivity	.28*	.29*	.11	.21*	.33*	.21*	.23*	.14	.23
Irresponsibility	.30*	.33*	.08	.30*	.33*	.22*	.13	.05	.22
(Lack of) Rigid perfectionism	-.22*	-.11	.01	-.02	-.17*	-.28*	-.08	-.07	-.11
Risk-taking	.24*	.34*	.14	.16*	.46*	.28*	.32*	.27*	.28
Profile Similarities									
CTS Phys	0.83								
CTS Sexual	-0.16	0.06							
CTS Injury	0.60	0.77	0.22						
RPQ Pro	0.72	0.76	0.08	0.48					
RPQ React	0.92	0.72	-0.10	0.46	0.82				
CAB ASB	0.47	0.50	0.25	0.53	0.63	0.51			
CAB Viol.	0.09	0.21	0.60	0.30	0.33	0.17	0.77		

Note. CTS = Conflict Tactics Scale – 2; Psych = Psychological Aggression; Phys = Physical Aggression; RPQ = Reactive and Proactive Aggression Questionnaire; CAB = Crime and Analogous Behavior Scale; ASB = Antisocial Behavior; Viol. = Violent Behavior.

* $p < .01$.

proactive aggression and both CAB scales. Additionally, Negative Affect demonstrated a stronger correlation with the CTS Physical scale compared to violent ASB.

Correlations Between PD Symptom Counts, Aggression, and ASB

Zero-order correlations between PD symptom counts and measures of aggression and ASB are presented in Table 6. All PD symptom counts were significantly and positively correlated with physical and psychological IPA, proactive aggression, and reactive aggression, with the exceptions of histrionic PD symptoms and psychological IPA and avoidant PD symptoms and proactive aggression. Results were slightly less consistent for the CTS Injury scale and for the CAB scales. Additionally, sexual IPA was only correlated with the Antagonism subscale of psychopathy and narcissistic PD symptoms. In terms of psychological IPA, the Disinhibition subscale of psychopathy ($r = .41$), BPD symptoms ($r = .38$), paranoid ($r = .34$), and ASPD symptoms ($r = .33$) were the most robust correlates. For physical IPA, the Antagonism subscale of psychopathy ($r = .30$) and BPD symptoms ($r = .36$) bore the strongest relations. In general, PD symptoms were more strongly correlated with proactive and reactive aggression compared to IPA. For proactive aggression, the strongest PD symptom correlates were ASPD ($r = .64$) and the Disinhibition scale of psychopathy ($r = .55$). For reactive aggression, the PD symptoms with the strongest relations were the Disinhibition scale of psychopathy ($r = .52$), paranoid PD ($r = .48$), BPD ($r = .47$), and ASPD ($r = .45$).

With respect to the CAB scales, avoidant PD, dependent PD, OCPD, and schizoid PD symptoms appeared to be unrelated to ASB. The strongest PD symptom correlates of CAB Antisocial Behavior were the Disinhibition scale of psychopathy and ASPD, both r s of .46. For CAB Violent Antisocial Behavior, ASPD symptoms were the strongest correlate ($r = .43$).

Steiger's (1980) tests of dependent correlations were again used to test whether ASPD and BPD symptom counts were stronger predictors of aggression and ASB compared to the other PD symptom counts. When compared with each other, BPD demonstrated significantly stronger ($p < .01$) correlations with physical and injurious IPA and ASPD demonstrated significantly stronger correlations with proactive aggression and both ASB scales. Compared to other PD symptom counts, BPD and ASPD generally demonstrated statistically stronger effects with aggressive and antisocial behavior compared to other PD symptom counts, but this varied to some extent by aggression/ASB outcome. In particular, ASPD demonstrated significantly stronger relations with

Table 6. Zero-Order Correlations and Profile Similarities Between PDs, Psychopathy, and Aggression Outcomes

	CTS Psych	CTS Phys	CTS Sexual	CTS Injury	RPQ Pro	RPQ React	CAB ASB	CAB Viol.	Avg. rs
EPA Antagonism	.28*	.30*	.12	.21*	.44*	.39*	.25*	.17*	.27
EPA Emot. Stab.	-.16*	-.07	.04	-.08	.03	-.10	.02	.11	-.03
EPA Disinhibition	.41*	.28*	.06	.12*	.55*	.52*	.46*	.33*	.35
EPA Total	.23*	.22*	.11	.10	.48*	.37*	.35*	.31*	.28
Avoidant PD	.19*	.15*	-.03	.09	.05	.20*	-.02	-.10	.07
Dependent PD	.15	.21*	.04	.10	.16*	.20*	.02	-.09	.10
OCPD	.24*	.15*	.01	.09	.19*	.34*	.01	-.01	.13
Passive Aggressive	.31*	.24*	.07	.18*	.35*	.44*	.17*	.08	.23
Depressive	.25*	.20*	-.06	.13	.17*	.31*	.08	.01	.14
Paranoid PD	.34*	.19*	.05	.16*	.37*	.48*	.18*	.18*	.25
Schizotypal PD	.22*	.20*	0	.05	.27*	.27*	.12	.06	.15
Schizoid PD	.17*	.15*	-.01	.12	.17*	.18*	.10	.03	.11
Histrionic	.11	.19*	.08	.12	.26*	.24*	.14	.17*	.16
Narcissistic	.24*	.29*	.15*	.15*	.46*	.38*	.20*	.22*	.26
BPD	.38*	.36*	.05	.24*	.40*	.47*	.20*	.14	.29
ASPD	.33*	.21*	-.05	.01	.64*	.45*	.46*	.43*	.33
Profile Similarities									
CTS Phys	.79								
CTS Sexual	-.47	-.40							
CTS Injury	.22	.41	.08						
RPQ Pro	.62	.41	-.43	-.16					
RPQ React	.78	.46	-.54	-.11	.81				
CAB ASB	.52	.44	-.16	.10	.61	.31			
CAB Viol.	.17	.12	.03	-.01	.37	.03	.87		

Note. CTS = Conflict Tactics Scale – 2; Psych = Psychological Aggression; Phys = Physical Aggression; RPQ = Reactive and Proactive Aggression Questionnaire; CAB = Crime and Analogous Behavior Scale; ASB = Antisocial Behavior; Viol. = Violent Behavior; EPA = Elemental Psychopathy Assessment; Emot. Stab = Emotional Stability subscale.

* $p < .01$.

proactive aggression and both ASB scales compared to every PD symptom count except psychopathy, which demonstrated similarly strong correlations with both ASB scales. ASPD also demonstrated weaker relations to sexual IPA compared to narcissistic PD and psychopathy symptoms. Broadly speaking, BPD was more strongly related to reactive aggression, physical IPA, and psychological IPA compared to the other PD symptom counts. A few exceptions were paranoid PD, which bore similar relations with psychological IPA and reactive aggression, narcissistic PD, which bore similar relations with physical IPA and reactive aggression, and psychopathy, which bore similar relations to BPD across outcomes.

FFM, PID-5, and PD Symptom Profile Similarities Across Subtypes of Aggression and ASB

In addition to the zero-order correlations described above for FFM facets, PID-5 traits, and PD symptom counts, intraclass correlation coefficients (r_{ICCS}) were calculated to index the absolute similarity in the correlational profiles of the various types of aggressive and antisocial behavior. These are presented in Tables 4, 5 and 6.

In terms of basic personality trait profile, as measured by the 30 FFM facets, all aggression scales (with the exception of CTS Sexual Coercion) had highly similar correlational profiles (r_{ICCS} ranging from .71 to .95) that largely consisted of positive correlations with facets of Neuroticism and negative correlations with facets of Agreeableness and Conscientiousness (Table 4). The CTS Sexual Coercion scale demonstrated a weak profile similarity compared to the other aggression scales (r_{ICCS} ranging from .10 to .18). The scales with the most similar FFM facet profiles were the CTS Physical and CTS Injury scales ($r_{ICC} = .95$) and the CTS Psychological and reactive aggression scales ($r_{ICC} = .94$). The CAB Antisocial Behavior scale demonstrated fairly high profile similarities with aggression measures (r_{ICCS} ranging from .66 - .88), except for CTS Sexual Coercion ($r_{ICC} = .13$). The FFM profile that was most similar to CAB Antisocial Behavior was that of proactive aggression. Compared to the Antisocial Behavior scale, CAB Violent Behavior demonstrated a more divergent profile, with most r_{ICCS} ranging from .33 to .65. Its highest r_{ICC} was with the CAB Antisocial Behavior scale ($r_{ICC} = .81$), which is unsurprising given that the CAB Antisocial Behavior scale subsumes the four behaviors comprising the Violent Behavior scale. The primary difference in the FFM correlates of CAB Violent Behavior compared to the other scales appeared to be stronger relations with facets of Extraversion and Openness.

Correlational profiles with the 25 traits of the PID-5 were also similar across aggression measures, with the exceptions of CTS Sexual Coercion and CTS Injury, whose r_{ICCS} with other aggression scales ranged from $-.16$ to $.22$ and $.22$ to $.70$, respectively (Table 5). The correlational profiles across all aggression outcomes consisted of positive relations with nearly every PID-5 trait. The primary differences between PID-5 trait profiles appeared to be mostly due to differences in the magnitudes of these positive relations, with CTS Sexual Coercion and CTS Injury scales bearing smaller correlations with PID-5 traits across all domains compared to other aggression measures. In terms of ASB, r_{ICCS} for the CAB Antisocial scale ranged from $.25$ to $.63$, with its most similar PID-5 profile being that of proactive aggression. The PID-5 profile of CAB Violent Behavior was largely dissimilar from other measures of aggression (r_{ICCS} ranging from $.09$ to $.33$) with the exception of CTS Sexual Coercion, with which it demonstrated a profile similarity of $.60$. The CAB Violent Behavior scale also showed a similar PID-5 profile to CAB Antisocial Behavior ($r_{\text{ICC}} = .77$).

PD symptom profile was measured by symptom counts of all ten PD diagnoses, psychopathy-related traits, and two additional PD profiles assessed by the SCID-II screener, depressiveness and passive-aggressiveness (Table 6). PD symptom profile similarities were less consistent across aggression measures compared with their correlational profiles of FFM facets and PID-5 traits. The three most similar PD symptom profiles across aggression measures were psychological and physical IPA ($r_{\text{ICC}} = .79$), reactive and proactive aggression ($r_{\text{ICC}} = .81$), and reactive aggression and psychological IPA ($r_{\text{ICC}} = .78$). Similar to PID-5 trait profiles, nearly all correlations between aggression and PD symptom counts were positive. Therefore, the central differences across profiles were in terms of the magnitude of the relations. Whereas the most similar profiles described above were all characterized by moderate to strong correlations with nearly all PD symptom counts, CTS Sexual Coercion and CTS Injury demonstrated smaller, and in the case of CTS Sexual Coercion, largely nonsignificant relations to PD symptoms. The CAB scales also demonstrated more inconsistent correlational patterns with PD symptom counts, and, as a result, had PD symptom profiles that were less similar than the aggression measures (r_{ICCS} ranging from $-.16$ to $.61$). CAB Antisocial Behavior and CAB Violent Behavior had highly similar PD symptom profiles ($r_{\text{ICC}} = .87$).

Hierarchical Regressions With FFM Facets and PID-5 Traits

Hierarchical regression analyses with PD symptom count added at step one and FFM facets added at steps two and three are presented in Tables 7-9. The regression models all followed the same structure: at step one, an aggression or ASB outcome was regressed onto a PD symptom count; at step two, FFM facets that have been described as representative of that PD were added to the model; and at step three, all other FFM facets were added to the model. Incremental variance added at steps two and three are presented in the tables; however, the central coefficient of interest was the semi-partial r^2 (sr^2) of the PD symptom count at steps two and three. This was examined as an indicator of how much the effect of a PD symptom count was reduced with the introduction of basic personality traits to the model. With respect to physical IPA, the sr^2 of each PD was reduced by at least 50% in step two, with the exception of histrionic PD. By step three, four PD symptom counts remained statistically significant: ASPD, BPD, histrionic PD and narcissistic PD. For these PD symptom counts, sr^2 coefficients ranged from .021 to .050. Findings were similar for psychological IPA at step two and in step three, only two PD symptom counts for antisocial PD and BPD remained statistically significant ($sr^2 = .038$ and $.026$, respectively). In terms of proactive aggression, sr^2 for each of the PD symptom counts was reduced by at least 50% in step two with the exception of schizotypal and antisocial PDs. The sr^2 of a number of PD symptom counts (antisocial, borderline, and narcissistic PD) remained statistically significant at step three, with ASPD still accounting for 23.1% of the variance in proactive aggression and the others each accounting for just over 4%. Similarly, for reactive aggression, although the sr^2 for almost all PD symptom counts was greatly reduced at step two, sr^2 remained statistically significant for all but three PDs (schizoid, avoidant, and dependent PD) at this step. At step three, all but schizotypal, schizoid, avoidant, and dependent PD remained statistically significant, with sr^2 coefficients ranging from .017 to .076. For the CAB Antisocial Behavior scale, effect sizes at step one were smaller than for the previously described aggression outcomes. At step two, sr^2 for each PD symptom count was reduced by more than 50% in all cases except for schizotypal and antisocial PDs, and at step three, only ASPD remained a significant predictor of ASB ($sr^2 = .093$). Findings were the same for the CAB Violent Behavior scale, with an ASPD symptom count sr^2 of .069 at step three.

Table 7. Hierarchical Regression Analyses With PDs, FFM Facets, and CTS Physical and Psychological Scales

CTS Physical Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.04*	.11**	.19**	.004	0
Schizoid	.02*	.06**	.19**	.002	0
Schizotypal	.04*	.08**	.20**	.019	.006
Antisocial	.05**	.15**	.22**	.021*	.023*
BPD	.13**	.18**	.24**	.058**	.050**
Histrionic	.04*	.14**	.21**	.035*	.021*
NPD	.08**	.14**	.22**	.036*	.025*
Avoidant	.02*	.07**	.20**	.008	.004
Dependent	.04**	.10**	.20**	.022*	.010
OCPD	.02*	.11**	.19**	.008	.001
CTS Psychological Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.11**	.20**	.26**	.018	.009
Schizoid	.03*	.09**	.25**	.002	0
Schizotypal	.05**	.09**	.16**	.013	0
Antisocial	.11**	.24**	.29**	.037**	.038**
BPD	.15**	.23**	.28**	.037**	.026*
Histrionic	.01	.15**	.26**	.014	.008
NPD	.06**	.19**	.25**	.005	.003

Table 7. continued

CTS Psychological Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Avoidant	.04*	.10**	.25**	.002	0
Dependent	.02	.16**	.25**	0	0
OCPD	.06**	.14**	.26**	.019	.004

Note. sr^2 for the PD symptom count at step 1 is the R^2 from step 1 (wherein PD symptom count was the only predictor in the model).

* $p < .01$; ** $p < .001$.

Table 8. Hierarchical Regression Analyses With PDs, FFM Facets, and RPQ Proactive and Reactive Aggression Scales

RPQ Proactive Aggression Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.14**	.30**	.35**	.011	.013
Schizoid	.03*	.13**	.33**	.006	.001
Schizotypal	.07**	.14**	.35**	.065**	.016
Antisocial	.41**	.54**	.56**	.232**	.231**
BPD	.16**	.32**	.38**	.057**	.044**
Histrionic	.07**	.22**	.35**	.035**	.016
NPD	.21**	.34**	.37**	.039**	.040**
Avoidant	0	.15**	.33**	.002	0
Dependent	.03*	.28**	.34**	.014	.003
OCPD	.04*	.15**	.34**	.022*	.002
RPQ Reactive Aggression Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.23**	.35**	.41**	.038**	.035**
Schizoid	.03*	.15**	.37**	.001	0
Schizotypal	.07**	.15*	.37**	.031*	.003
Antisocial	.20**	.42**	.45**	.077**	.076**
BPD	.22**	.38**	.42**	.063**	.048**
Histrionic	.06**	.24**	.39**	.043**	.023*
NPD	.15**	.36**	.39**	.017*	.017*

Table 8. continued

RPQ Reactive Aggression Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Avoidant	.04**	.19**	.37**	.011	.003
Dependent	.04*	.29**	.37**	.007	.003
OCPD	.12**	.19**	.39**	.045**	.017*

Note. sr^2 for the PD symptom count at step 1 is the R^2 from step 1 (wherein PD symptom count was the only predictor in the model).

* $p < .01$; ** $p < .001$.

Table 9. Hierarchical Regression Analyses With PDs, FFM Facets, and CAB Antisocial Behavior and Violent Antisocial Behavior Scales

CAB ASB Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.03*	.14**	.27**	0	0
Schizoid	.01	.08**	.27**	0	0
Schizotypal	.02	.12**	.27**	.015	.001
Antisocial	.21**	.31**	.36**	.106**	.093**
BPD	.04**	.13**	.27**	.006	.001
Histrionic	.02	.18**	.27**	.004	.002
NPD	.04**	.20**	.27**	.001	0
Avoidant	0	.12**	.27**	0	.001
Dependent	0	.10**	.27**	.001	.001
OCPD	0	.13**	.28**	0	.007

CAB Violent ASB Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.033*	.13**	.27**	0	.001
Schizoid	0	.10**	.28**	.003	.009
Schizotypal	0	.12**	.27**	.015	0
Antisocial	.18**	.29**	.34**	.076**	.069**
BPD	.03	.14**	.27**	.004	0
Histrionic	.03*	.20**	.27**	.013	.007
NPD	.05**	.21**	.27**	.005	.002

Table 9. continued

CAB Violent ASB Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Avoidant	.01	.13**	.27**	0	.003
Dependent	.01	.16**	.27**	.002	.004
OCPD	0	.10*	.28**	0	.010

Note. sr^2 for the PD symptom count at step 1 is the R^2 from step 1 (wherein PD symptom count was the only predictor in the model).

* $p < .01$; ** $p < .001$.

Hierarchical regression analyses with PID-5 traits added at steps two and three are presented in Tables 10-12. All regression models were constructed using the same procedures described above, only using PID-5 traits rather than FFM facets. In the physical IPA models, the sr^2 for every PD symptom count was reduced by more than 50% except for the sr^2 of histrionic PD symptoms. By step three, the sr^2 of each PD symptom count was reduced to nearly zero except for BPD, which remained statistically significant and accounted for 3.5% of the variance in physical IPA. With respect to psychological IPA, sr^2 for every PD symptom count was reduced by more than 50% at step two and only ASPD remained statistically significant. At step three, the sr^2 for most PD symptoms was reduced to almost zero except for ASPD ($sr^2 = .030$) and BPD ($sr^2 = .019$), which still explained significant proportions of variance in psychological IPA. In terms of proactive aggression, the sr^2 of most PD symptom counts similarly was reduced by more than 50% at step two; however, the unique contribution of variance from paranoid, antisocial, borderline, and histrionic PDs remained statistically significant. The same PDs remained significant at step three, with the exception of histrionic PD (sr^2 coefficients ranging from .024 to .191). Additionally, narcissistic PD became statistically significant at this step ($sr^2 = .018$). Similarly, with models of reactive aggression, sr^2 of all PD symptom counts was reduced by more than 50% except in the case of histrionic PD symptoms. The effects of schizoid, schizotypal, avoidant and dependent PDs were reduced to zero (or close to zero) at step two while all other PD symptom counts remained significant. Although the sr^2 for these PD symptom counts were somewhat reduced at step three, the same symptom counts remained significant except for narcissistic PD and OCPD (with sr^2 coefficients ranging from .021 to .066 for paranoid PD, ASPD, BPD, and histrionic PD). Findings were slightly different with respect to CAB Antisocial Behavior. For example, although avoidant PD symptom count had an effect of zero on antisocial behavior at step one, its effect actually increased to .014 at step two with PID-5 traits in the model, although it still did not explain a significant proportion of variance in antisocial behavior. Other changes in sr^2 were more similar to the findings presented above, with over 50% reductions in sr^2 from step one to step two except for antisocial and histrionic PDs. At step three, the sr^2 for almost all PDs was reduced to nearly zero, with the exception of ASPD, which explained 10.1% of the variance in ASB and remained a significant predictor of antisocial behavior even with all other PID-5 traits added to the model. Findings for CAB Violent Behavior almost exactly mirrored the findings for CAB Antisocial

Behavior; however, the sr^2 for antisocial, histrionic, and avoidant PDs remained statistically significant at step two before dropping to only ASPD ($sr^2 = .100$) at step three.

Table 10. Hierarchical Regression Analyses With PDs, PID-5 Facets, and CTS Physical and Psychological Scales

CTS Physical Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.04*	.14**	.24**	.002	.002
Schizoid	.02*	.08**	.24**	.001	0
Schizotypal	.04*	.16**	.24**	0	0
Antisocial	.05**	.19**	.24**	.007	.006
BPD	.13**	.16**	.27**	.053**	.035**
Histrionic	.04*	.08**	.25**	.026*	.008
NPD	.08**	.12**	.17**	.014	.006
Avoidant	.02*	.16**	.24**	.006	.004
Dependent	.04**	.06**	.24**	.013	.006
OCPD	.02*	.06*	.24**	.008	.003
CTS Psychological Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.11**	.20**	.21**	.007	.007
Schizoid	.03*	.10**	.20**	.003	.001
Schizotypal	.05**	.16**	.27**	0	0
Antisocial	.11**	.23**	.30**	.036**	.030*
BPD	.15**	.20**	.29**	.016	.019*
Histrionic	.01	.10**	.27**	.005	0
NPD	.06**	.10**	.27**	.005	0

Table 10. continued

CTS Psychological Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Avoidant	.04*	.14**	.27**	0	0
Dependent	.02	.08**	.27**	0	.001
OCPD	.06**	.11**	.27**	.009	.001

Note. sr^2 for the PD symptom count at step 1 is the R^2 from step 1 (wherein PD symptom count was the only predictor in the model).

* $p < .01$; ** $p < .001$.

Table 11. Hierarchical Regression Analyses With PDs, PID-5 Facets, and RPQ Proactive and Reactive Aggression Scales

RPQ Proactive Aggression Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.14**	.19**	.39**	.023*	.024*
Schizoid	.03*	.06*	.36**	.001	0
Schizotypal	.07**	.16**	.37**	.009	.008
Antisocial	.41**	.53**	.56**	.212**	.191**
BPD	.16**	.21**	.41**	.060**	.041**
Histrionic	.07**	.11**	.37**	.056**	.010
NPD	.21**	.27**	.38**	.036	.018*
Avoidant	0	.23**	.36**	0	0
Dependent	.03*	.04*	.37**	.015	.005
OCPD	.04*	.07**	.36**	.010	0
RPQ Reactive Aggression Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.23**	.34**	.43**	.069**	.063**
Schizoid	.03*	.10**	.37**	.001	.002
Schizotypal	.07**	.17**	.37**	.001	.003
Antisocial	.20**	.39**	.43**	.073**	.063**
BPD	.22**	.31**	.44**	.062**	.066**
Histrionic	.06**	.13**	.39**	.042**	.021*
NPD	.15**	.19**	.38**	.029*	.009

Table 11. continued

RPQ Reactive Aggression Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Avoidant	.04**	.17**	.38**	0	.005
Dependent	.04*	.09**	.37**	.003	.004
OCPD	.12**	.17**	.38**	.033*	.010

Note. sr^2 for the PD symptom count at step 1 is the R^2 from step 1 (wherein PD symptom count was the only predictor in the model).

* $p < .01$; ** $p < .001$.

Table 12. Hierarchical Regression Analyses With PDs, PID-5 Facets, and CAB Antisocial Behavior and Violent Antisocial Behavior Scales

CAB ASB Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.03*	.07**	.26**	.003	.001
Schizoid	.01	.04	.26**	0	.002
Schizotypal	.02	.10**	.26**	.001	.001
Antisocial	.21**	.27**	.36**	.115**	.101**
BPD	.04**	.09**	.26**	.009	.004
Histrionic	.02	.03	.25**	.017	0
NPD	.04**	.10**	.25**	.005	0
Avoidant	0	.16**	.26**	.014	.004
Dependent	0	.02	.26**	0	.002
OCPD	0	.04*	.26**	.005	.009
CAB Violent ASB Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Paranoid	.03*	.05*	.20**	.009	.006
Schizoid	0	.03	.20**	.001	.005
Schizotypal	0	.08*	.20**	.002	.002
Antisocial	.18**	.22**	.30**	.117**	.100**
BPD	.02	.06*	.20**	.012	.006
Histrionic	.03*	.03*	.20**	.028*	.003
NPD	.05**	.06**	.20**	.014	.003

Table 12. continued

CAB Violent ASB Scale					
	R^2			sr^2 of PD	
	Step 1	Step 2	Step 3	Step 2	Step 3
Avoidant	.01	.11**	.20**	.023*	.006
Dependent	.01	.04	.21**	.018	.014
OCPD	0	.03	.20**	.004	.004

Note. sr^2 for the PD symptom count at step 1 is the R^2 from step 1 (wherein PD symptom count was the only predictor in the model).

* $p < .01$; ** $p < .001$.

DISCUSSION

The present study examined the personality correlates of various types of aggression and ASB using basic traits as operationalized by the FFM, pathological traits as operationalized by the PID-5, and PD symptom counts. In addition to examining the individual personality correlates of each type of aggressive and antisocial behavior, personality trait and PD symptom profiles were compared across behaviors to assess the degree of similarity between the correlates of each behavior. Finally, to determine how much variance in aggression and ASB can be explained by PD symptom counts after accounting for more basic traits, hierarchical regression models were conducted using both FFM facets and PID-5 traits. This study was conducted in the context of a lack of published research examining the more basic personality trait correlates of IPA. By examining these correlates, as well as comparing correlate profiles to other types of aggression, the central goal of the present study was to bridge research on IPA to research on aggression more broadly. A secondary goal of the study was to better understand the extent to which basic and pathological traits might account for the relations that PD symptom counts bear with aggressive and antisocial behavior.

In general, the proposed hypotheses for the study were partially supported. In terms of which broad personality domains served as the strongest correlates of aggression and ASB, Agreeableness and Conscientiousness demonstrated the strongest and most consistent relations with all aggression and ASB outcomes, as hypothesized. Agreeableness showed significantly stronger negative relations to proactive aggression, reactive aggression, and violent ASB compared to Conscientiousness, and was most strongly correlated with RPQ Proactive and Reactive aggression. Additionally, it was hypothesized that Neuroticism would be more positively related to reactive aggression and IPA compared to the other aggression and ASB outcomes. This hypothesis was partially supported. Neuroticism was more strongly related to reactive aggression compared to proactive aggression and both types of ASB and was more strongly related to psychological IPA than both types of ASB. Additionally, Neuroticism was more strongly related to physical IPA than violent ASB. However, Neuroticism was also positively related to proactive aggression and its relation to proactive aggression did not differ significantly compared to physical and psychological IPA. Additionally, the Sexual Coercion subscale of the CTS was largely

unrelated to FFM domains, with the exception of a small but statistically significant relation with Openness.

One point worth noting with respect to CTS Sexual Coercion was that it demonstrated the weakest relations with other forms of aggression and with personality characteristics. This is likely due to poor reliability of this scale in the present study, which likely attenuated the correlations it bore with other variables. Poor reliability can often result from restricted range in outcomes, which was certainly the case with the CTS Sexual Coercion scale (in which 236 of 307 participants endorsed 0 on all items); however, this range restriction (range = 0 – 7.71) did not appear to substantially differ from the range restriction on other CTS scales. In fact, 254 participants endorsed 0 for all items of the CTS Physical scale (range = 0 – 6.5), yet the internal consistency appeared to be adequate. Notably, the standard deviation for the CTS Sexual Coercion scale was larger (1.17) than that of the CTS Physical scale (.55) and CTS Injury scale (.57), which may have also contributed to its relatively weak reliability.

Within the Neuroticism domain, the Anger and Depression facets appeared to have the strongest and most consistent relations with aggressive and antisocial behavior. Within Conscientiousness, the Dutifulness and Deliberation facets were the most consistent correlates (in the negative direction) across aggression and ASB. All facets of Agreeableness appeared to negatively correlate at least to some extent with aggressive and antisocial behavior, but the most robust facet correlates were Trust, Straightforwardness, Altruism, and Compliance.

The hypothesis that corresponding pathological personality domains from the alternative DSM-5 model of PDs (i.e., Antagonism, Disinhibition, Negative Affect) would demonstrate the strongest relations with these outcomes was also partially supported. Antagonism, Disinhibition, and Negative Affect were all positively correlated with the CTS2 and RPQ aggression scales, with the exception of CTS Sexual Coercion, which was only correlated with Antagonism. Additionally, Negative Affect was most strongly correlated with the CTS Psychological and RPQ Reactive Aggression scales, which was similar to the finding that Neuroticism was most strongly related to these two types of aggression. However, the effect sizes for Antagonism, Disinhibition, and Negative Affect were generally the same as the effect sizes for Psychoticism and Detachment with aggression outcomes. As such, it appeared that the PID-5 domains were more indiscriminately correlated with aggression and ASB compared to the FFM domains. These findings may reflect

the increased pathology built into all domains of the PID-5, which could inflate its relations with problematic behaviors of all kinds.

Additionally, although CAB Antisocial Behavior was positively correlated with Antagonism and Disinhibition, the CAB Violent Behavior scale was not significantly correlated with Disinhibition. Similar to the CTS Sexual Coercion scale, the CAB Violent Behavior scale showed poor reliability. Upon closer inspection of the data, 175 participants endorsed 0 on all four violent ASB items and another 117 only endorsed one item, resulting in a highly restricted range in responses. As such, it is likely the case that the correlations between violent ASB and aggression and ASB are highly attenuated and findings should be interpreted with this in mind.

Hypotheses regarding the PD symptom correlates of aggression and ASB were also partially supported. Broadly speaking, symptom counts across all PDs were almost all positively correlated with physical IPA, psychological IPA, reactive aggression and proactive aggression, with more mixed results for ASB and the CTS Sexual Coercion and Injury scales. As predicted, ASPD and BPD were two of the most robust PD symptom correlates across aggression and ASB outcomes; however, ASPD and BPD were not always the strongest PD symptom correlate for each behavior. For example, sexual IPA was only correlated with the Antagonism subscale of psychopathy and narcissistic PD symptoms. Additionally, physical IPA was more highly correlated with narcissistic PD and psychopathic symptoms, and equally correlated with dependent PD symptoms, compared to ASPD symptoms. Similarly, proactive aggression was more strongly correlated with narcissistic PD and psychopathic symptoms compared to BPD symptoms, and reactive aggression more strongly correlated with paranoid PD symptoms compared to both BPD and ASPD.

In terms of differences in PD symptom correlates that were hypothesized between different subtypes of aggression, symptoms of PDs with high representations of Neuroticism were indeed correlated with psychological and physical IPA as well as reactive aggression. This is particularly reflected by findings showing that BPD, the PD in which Neuroticism is most highly represented, was significantly more strongly related to reactive aggression, physical IPA, and psychological IPA compared to the other PD symptom counts. The few exceptions that demonstrated statistically similar relations to these outcomes, paranoid and narcissistic PD, are PDs that are also at least partially represented by Neuroticism. However, these PD symptoms appeared to correlate with

proactive aggression as well. To a lesser extent, some of these PD symptoms (histrionic, narcissistic, schizotypal, and paranoid) were also correlated with ASB.

The correlation between PDs with high representations of Neuroticism and proactive aggression may be due at least in part to the relatively high correlation between reactive and proactive aggression in the present study ($r = .59$), which is consistent with previous research findings suggesting that reactive and proactive aggression are strongly related (e.g., Poulin & Bolvin, 2000; Miller & Lynam, 2006). Additionally, PDs with high representations of Neuroticism also have other features (such as low Agreeableness and/or low Conscientiousness) that might make them more highly correlated with proactive aggression and ASB. Two examples are paranoid and narcissistic PDs, both of which are characterized by a significant degree of low Agreeableness, which bore strong relations with all types of aggressive and antisocial behavior. Finally, previous meta-analytic findings have indicated that Neuroticism has been a significant correlate of aggression broadly defined (Jones et al., 2011) and that specific facets of Neuroticism are significantly correlated with proactive aggression (Vize et al., 2018). As such, although Neuroticism may be more strongly related to more reactive forms of aggression, it likely also plays a role in other more instrumental types of aggression.

Examining overall profiles of FFM facet, PID-5 trait and PD symptom correlations across all aggression and ASB outcomes allowed for an understanding of the overall degree of similarity of the personality correlates of these behaviors. With the exception of CTS Sexual Coercion, all aggression scales demonstrated highly similar FFM facet correlational profiles, with the highest profile similarities between the CTS Physical and CTS Injury scales and the CTS Psychological and reactive aggression scales. The FFM facet profile of Violent ASB was less convergent with scales of aggression compared to general ASB, which may have been related to the poor reliability of the scale. With respect to the 25 PID-5 traits, profiles were still very similar across aggression measures, with the exceptions of CTS Sexual Coercion and CTS Injury. As was the case with its FFM profile, the PID-5 profile of Violent ASB was similarly divergent compared with other aggression and ASB variables. Compared to the PID-5 and FFM, PD symptom profile similarities were less consistent across aggression measures. The three most similar PD symptom profiles across aggression measures were psychological and physical IPA, reactive and proactive aggression, and reactive aggression and psychological IPA. Whereas the most similar profiles were all characterized by moderate to strong correlations with nearly all PD symptom counts, CTS

Sexual Coercion and CTS Injury demonstrated much smaller relations. The CAB scales also demonstrated more inconsistent correlational patterns with PD symptom counts, and, as a result, had PD symptom profiles that were less similar than the aggression measures. Generally speaking, the profiles across aggression outcomes appeared to be highly similar, with moderate but less convergent profiles with general ASB.

Although the FFM facet, PID-5 trait, and PD symptom profiles were more similar than expected between certain types of aggression, such as proactive and reactive aggression, other hypotheses about profile similarities were supported. For example, psychological IPA and reactive aggression demonstrated two of the most similar profiles in terms of FFM facets, PID-5 traits, and PD symptom counts. FFM facet profiles were also highly similar across CTS scales (with the exception of Sexual Coercion) and between proactive aggression and ASB. Counter to what was hypothesized, the FFM facet, PID-5 trait, and PD symptom profiles of CAB Violent ASB did not converge as much as expected with the profile of RPQ Proactive Aggression, although this may have been due to its smaller correlations across all facets due to range restriction. In addition, both CAB scales demonstrated highly similar profiles across all three personality measurements. These findings suggest that personality and PD profiles across all forms of aggression were more similar than expected, with some evidence for especially high convergence between reactive aggression and psychological IPA and between general ASB and proactive aggression.

As an extension of the findings above, where FFM facets, PID-5 traits, and PD symptoms were examined separately, additional analyses were conducted to test whether or not the relations between PD symptom counts and aggressive and antisocial behavior could be accounted for by the personality traits thought to comprise them. A great deal of research examining personality as a predictor of intimate partner aggression has utilized PD diagnoses or PD symptom counts rather than more basic traits. Given concerns about heterogeneity within diagnoses (Kotov et al., 2017) and some evidence that comorbidity of PD diagnoses may be due to shared personality traits (Lynam & Widiger, 2001), the goal of these additional analyses was to determine if traits may be a better unit of analysis for personality disorders. Additionally, the findings may provide more information about which specific traits may be responsible for the most variance in aggression and ASB.

As hypothesized, the addition of PD-characteristic FFM facets and PID-5 traits greatly reduced the sr^2 of the PD symptom count at step two of almost every regression model for every

aggression and ASB outcome. In many cases, the addition of these facets and PID-5 traits reduced the sr^2 of the PD symptom count to nearly 0, indicating that most of the information provided by PD symptom count can be explained by certain basic and pathological personality traits. In the case of the FFM, these traits were derived from expert ratings of FFM facets they indicated were characteristic of each PD (Lynam & Widiger, 2001). With respect to the PID-5, these traits were assigned to each PD by the DSM-5 Personality and Personality Disorders Work Group (Samuel et al., 2012) in the Alternative DSM-5 Model for Personality Disorders (APA, 2013).

A fairly consistent exception to this rule was histrionic PD, whose sr^2 was not as substantially reduced at step two across many of the aggression and ASB outcomes. There are two reasons this might be the case. The first is that histrionic PD trait profiles could be misspecified. The second is that many of the traits associated with histrionic PD may not be strongly associated with aggression or ASB. According to expert ratings (Lynam & Widiger, 2001), the FFM facets corresponding to histrionic PD are Self-consciousness (N4), Impulsiveness (N5), Gregariousness (E2), Activity level (E4), Excitement-seeking (E5), Cheerfulness (E6), Imagination (O1), Emotionality (O3), Adventurousness (O4), Trust (A1), Self-discipline (C5), and Deliberation (C6). When examining these facet correlations in Table 4, it appears that only the latter three facets bear significant correlations with aggression and ASB. In terms of the PID-5 traits that are associated with histrionic PD, only one (Emotional Lability) was available using the briefer PID-5 measure used in the present study. As such, although Emotional Lability was a significant predictor of most aggressive and antisocial behavior, it may be the case that the inclusion of other traits related to histrionic PD could have further explained its relations to these outcomes.

One PD that consistently remained a significant predictor of aggression and ASB, even after PD-characteristic traits had been entered into the model, was ASPD. Upon further examination of the items in the SCID-II screener used to measure ASPD symptoms in this study, it becomes clear why this is the case. ASPD items are exclusively related to whether or not an individual has engaged in various antisocial behaviors before the ages of 13 or 15 (depending on the item). As such, there is a tautological problem such that the criteria used to assess ASPD are almost exactly the same as the outcomes of interest in the present study, only the ASPD screener assesses for these behaviors at a younger age. Although the DSM-5 outlines several personality traits as symptoms of ASPD, such as impulsivity, irritability, irresponsibility, and lack of remorse (APA, 2013), the manual indicates that each of these traits must be evidenced by the behaviors

assessed in the screener (e.g., having stolen from someone, having gotten into repeated physical fights or assaults, repeatedly lying, etc.). Thus, it becomes clear why this symptom count would continue to explain additional variance in aggression and ASB even after accounting for the personality traits that are characteristic of ASPD.

Another PD that remained a significant predictor of almost all aggression outcomes after accounting for PD-characteristic traits was BPD. Whereas ASPD criteria overlapped significantly with the behavioral outcomes being assessed in the present study, the items assessing BPD symptomatology were more varied and focused more on self-directed injury and harm. Only one of its 15 items on the SCID-II screener asked explicitly about aggressing towards others (“Do you hit people or throw things when you get angry?”). Notably, two items assess whether the individual has ever become frantic at the thought of someone leaving them and whether or not the individual’s relationships with people they care about have many ups and downs, both of which could potentially tap into conflict in intimate partnerships. It is possible that these items, and items related to self-injury, represent behaviors that correlate with other-directed aggression and ASB over and above what personality traits alone can explain.

Despite the increased level of impairment in the item content of the PID-5, there was no substantial difference in the reduction of the sr^2 of the PD symptom count at step two between FFM facets and PID-5 traits. This may be due to the fact that there tended to be more inconsistent numbers of PID-5 traits (sometimes only one) that had been selected as indicative of that PD compared with expert profile ratings, which yielded more traits per PD.

Limitations and Conclusions

As mentioned previously, one major limitation of this study is the restriction in the range of aggressive and antisocial behaviors endorsed by participants. This may have impacted the reliability of the scales used (particularly for the violent ASB scale of the CAB and CTS Sexual Coercion scale) and limited the effects that could be found. Using similar screening procedures to the ones used in the current study, future researchers could screen for participants who endorse a history of aggressive behavior or arrests to oversample for participants who have had these experiences. Additionally, the study could be repeated in forensic or treatment sample. Another limitation of the study is its sample size. Although it was adequately powered to find the correlational and regression effects reported, the initial power analysis did not account for the

number of comparisons that were eventually examined. For this reason, only effects whose p -values were less than .01 were interpreted as statistically significant. Additionally, emphasis was placed on relative magnitude of effect (e.g., profile similarities, reduction in sr^2) rather than statistical significance. Finally, given that one of the primary outcomes of interest in this study was IPA, it is important to note that the study relied solely on self-reported aggressive behavior. This could be particularly limiting given some research that has suggested that couples do not have good agreement rates when reporting on IPA using the CTS2 (Marshall, Mattern & Wong, 2020; O’Leary & William, 2006; Cuenca et al., 2015).

These limitations notwithstanding, the findings from this study fill in gaps left by previous research on IPA. In particular, rather than relying on broad, heterogeneous typologies or PD diagnoses, the present study allows for a finer-grained understanding of the personality traits that are associated with perpetrating aggression in the context of a romantic relationship. These traits appear to largely be related to most facets of (low) Agreeableness and some facets (low) Conscientiousness. In the case of psychological IPA, facets of Neuroticism also appear to be important predictors. The similarities in trait and PD profiles between reactive aggression and IPA suggest a possible bridge between research areas and finding a better understanding of the shared mechanisms of these two types of aggression. Beyond understanding potential mechanisms and risk factors for this type of aggression, the findings also have implications for intervention. In particular, the findings lend support for using cognitive behavioral therapy intervention programs developed for individuals who perpetrate IPA (Murphy & Eckhardt, 2005), which may incorporate emotion regulation skills training and anger management strategies that could reduce the impact of the maladaptive traits identified in this study. Finally, the various units of personality analysis examined in the present study offer implications for future research examining personality more broadly. At least with respect to various subtypes of aggression and ASB, it appears that PD symptom counts (with the possible exceptions of ASPD and BPD) do not necessarily offer much more information than basic traits as assessed by either the FFM or the PID-5. Additionally, these two measures offer a more detailed and specific picture of the traits driving relations between broader PD symptom clusters and outcomes of interest.

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APPENDIX A

Zero-Order Correlations Between FFM Facets and Aggression and Antisocial Behavior, by Gender

	CTS Psych		CTS Phys		CTS Sexual		CTS Injury		RPQ Pro		RPQ React		CAB ASB		CAB Viol.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Neuroticism	.40*	.16	.22*	.16	-.01	.02	.21	.10	.20	.21*	.33*	.34*	.10	.18	-.01	.12
N1: Anxiety	.29*	.20	.14	.16	-.03	.07	.14	.08	.09	.18	.22	.33*	.01	.19	-.08	.13
N2: Anger	.41*	.31*	.19	.16	.09	.04	.21	.08	.32*	.24*	.47*	.43*	.19	.19	.11	.16
N3: Depression	.38*	.13	.23*	.21*	.03	-.08	.20	.06	.14	.24*	.26*	.32*	.12	.21*	.02	.17
N4: Self-consciousness	.34*	-.04	.19	.05	-.06	-.01	.17	.02	.06	.03	.08	.14	-.07	.04	-.16	-.03
N5: Impulsiveness	.25*	.09	.19	.07	-.04	.10	.19	.15	.23*	.11	.35*	.20*	.20	.14	.11	.06
N6: Vulnerability	.24*	.07	.15	.10	-.07	.01	.13	.09	.10	.15	.20	.18	.04	.09	-.08	.07
Extraversion	-.21	-.04	-.03	-.13	.06	.05	-.11	-.01	0	-.11	-.09	-.14	.01	-.07	.12	-.04
E1: Warmth	-.29*	-.14	-.12	-.20	-.05	.01	-.19	-.08	-.12	-.18	-.22	-.22*	-.09	-.17	-.02	-.09
E2: Gregariousness	-.12	-.10	.02	-.10	.11	.07	-.09	.02	.06	-.08	-.01	-.18	.07	-.05	.09	-.09
E3: Assertiveness	-.18	.04	-.03	-.05	.06	.02	-.04	0	.04	.05	0	.05	.04	-.01	.18	.05
E4: Activity level	-.07	.06	.07	-.01	.05	-.04	.04	.02	-.03	-.10	-.12	.02	0	.06	.12	.16
E5: Excitement-seeking	.04	.10	.09	-.01	.09	.09	.01	.08	.19	.08	.16	.02	.15	.01	.18	-.03
E6: Cheerfulness	-.31*	-.13	-.18	-.20*	-.03	.06	-.20	-.08	-.16	-.24*	-.23*	-.28*	-.16	-.14	-.04	-.17

Openness	.01	.02	-.05	.03	-.16	-.08	-.02	-.06	.10	.11	0	.08	.20	.21*	.14	.12
O1: Imagination	.22	.11	.13	.03	.01	.01	.14	-.01	.15	.11	.16	.12	.18	.18	.18	.05
O2: Artistic interests	-.07	-.01	-.07	.02	-.07	-.10	-.04	-.01	.05	-.01	-.03	-.07	.11	.06	.15	.01
O3: Emotionality	.05	.05	-.07	.07	-.02	.04	-.05	0	.09	.08	.14	.10	.13	.11	.02	.01
O4:																
Adventurousness	-.11	-.04	-.03	-.04	-.15	-.05	-.05	-.07	.02	.07	-.09	-.07	.10	.06	.07	.08
O5: Intellect	-.15	.05	-.25*	.01	-.14	-.09	-.20	-.04	-.03	.10	-.11	.04	.11	.14	.07	.20*
O6: Values	.07	-.08	.07	.02	-.22	-.09	.10	-.09	.08	.05	-.04	.16	.13	.19	.06	.07
Agreeableness	-.31*	-.24*	-.31*	-.09	-.16	-.01	-.25*	-.05	-.49*	-.28*	-.45*	-.28*	-.25*	-.12	-.24*	-.08
A1: Trust	-.18	-.24*	-.03	-.24*	0	.06	-.07	-.08	-.33*	-.27*	-.38*	-.25*	-.22*	-.15	-.24*	-.20
A2: Straightforward	-.31*	-.19	-.28*	.01	-.10	.02	-.19	.03	-.43*	-.25*	-.36*	-.22*	-.33*	-.14	-.22*	.01
A3: Altruism	-.28*	-.11	-.38*	-.07	-.07	.07	-.39*	-.04	-.28*	-.10	-.29*	-.17	-.15	-.04	-.05	.04
A4: Compliance	-.44*	-.30*	-.36*	-.15	-.21	-.12	-.24*	-.07	-.53*	-.41*	-.54*	-.45*	-.24*	-.20	-.24*	-.29*
A5: Modesty	-.04	.06	-.16	.17	-.11	-.14	-.12	-.03	-.22	0	-.14	.06	-.01	.07	-.10	.13
A6:																
Tendermindedness	-.06	-.11	-.10	-.01	-.15	.04	-.06	.01	-.20	-.04	-.12	-.06	-.06	-.01	-.09	.05
Conscientiousness	-.38*	-.08	-.31*	-.13	.03	.02	-.26*	-.12	-.24*	-.23*	-.23*	-.18	-.18	-.12	-.01	0
C1: Competence	-.30*	.02	-.29*	-.05	.01	-.02	-.26*	-.10	-.15	-.16	-.16	-.12	-.06	.01	.06	.11
C2: Order	-.24*	-.08	-.15	-.09	.10	.01	-.14	-.05	-.10	-.10	-.12	-.13	-.06	-.07	.01	-.01
C3: Dutifulness	-.36*	-.11	-.37*	-.10	-.02	.07	-.26*	-.07	-.30*	-.28*	-.25*	-.20*	-.20	-.17	-.02	.01
C4: Achievement	-.15	-.01	-.16	-.12	.06	-.02	-.11	-.11	-.13	-.13	-.03	-.05	-.13	-.08	.01	.06
C5: Self-discipline	-.33*	.01	-.25*	-.02	.02	.03	-.23*	-.05	-.23*	-.12	-.24*	-.09	-.19	-.02	-.03	.07
C6: Deliberation	-.35*	-.21*	-.25*	-.22*	-.06	.02	-.21	-.21*	-.20	-.32*	-.25*	-.26*	-.18	-.23*	-.03	-.21*

Profile Similarities										
CTS Psych.	.87	.79								
CTS Sexual	.08	.03	.19	-.19						
CTS Injury	.86	.55	.96	.64	.12	.24				
RPQ Proactive	.80	.83	.83	.76	.25	-.05	.78	.49		
RPQ Reactive	.89	.82	.81	.75	.25	-.01	.78	.43	.93	.91
CAB ASB	.61	.81	.65	.83	.13	-.15	.66	.49	.84	.83
CAB Viol.	.17	.73	.25	.72	.37	-.16	.22	.35	.57	.61
									.42	.62
									.73	.77

Note. Bolded and italicized correlations represent correlations and profile similarities that significantly differ between men and women. CTS = Conflict Tactics Scale – 2; Psych = Psychological Aggression; Phys = Physical Aggression; RPQ = Reactive and Proactive Aggression Questionnaire; CAB = Crime and Analogous Behavior Scale; ASB = Antisocial Behavior; Viol. = Violent Behavior. * $p < .01$.

APPENDIX B

Zero-Order Correlations Between PID-5 Traits and Aggression and Antisocial Behavior, by Gender

	CTS Psych		CTS Phys		CTS Sexual		CTS Injury		RPQ Pro		RPQ React		CAB ASB		CAB Viol.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Negative Affect	.41*	.27*	.28*	.19	.10	.01	.24*	.11	.22*	.20*	.32*	.39*	.05	.25*	-.05	.23*
Anxiousness	.33*	.23*	.16	.17	0	-.04	.17	.11	.17	.16	.27*	.34*	.11	.27*	.03	.23*
Emotional lab.	.42*	.25*	.32*	.22*	.07	.06	.23*	.13	.33*	.25*	.37*	.30*	.09	.25*	-.03	.20*
Hostility	.46*	.37*	.24*	.22*	.12	.07	.27*	.11	.41*	.33*	.52*	.50*	.22	.23*	.10	.22*
Perseveration	.44*	.31*	.36*	.19	.12	.03	.31*	.11	.28*	.20*	.37*	.38*	.06	.23*	-.06	.17
(Lack) Res aff.	-.26*	-.10	-.16	-.20*	-.01	-.08	-.17	-.10	-.16	-.16	-.20	-.13	-.10	-.08	-.05	-.12
Separation ins.	.29*	.13	.22*	.18	.15	.02	.17	.15	.10	.09	.16	.19	-.06	.11	-.02	.19
Submissiveness	.29*	.05	.23*	.05	.06	-.03	.18	-.02	-.04	.05	.06	.16	-.08	.11	-.24*	.11
Detachment	.42*	.25*	.35*	.22*	.08	.06	.33*	.07	.28*	.27*	.33*	.34*	.14	.22*	.01	.20*
Anhedonia	.42*	.19	.30*	.18	.11	.04	.24*	.07	.20	.20	.26*	.32*	.10	.16	-.03	.17
Depressivity	.35*	.12	.28*	.15	.11	.05	.30*	.06	.18	.26*	.27*	.30*	.11	.16	0	.14
Intimacy avoid.	.32*	.21*	.37*	.11	-.03	.06	.36*	.03	.26*	.14	.26*	.16	.12	.10	.03	.10
Suspiciousness	.35*	.30*	.36*	.30*	.19	.12	.30*	.14	.37*	.32*	.33*	.31*	.16	.17	.15	.21*
Withdrawal	.29*	.22*	.15	.18	-.08	-.02	.19	0	.17	.21*	.24*	.32*	.10	.28*	-.06	.22*

Psychoticism	.38*	.22*	.37*	.20*	.04	.09	.24*	.17	.41*	.26*	.35*	.34*	.14	.27*	.07	.25*
Eccentricity	.32*	.18	.27*	.07	-.04	-.01	.21	.08	.41*	.14	.37*	.28*	.20	.23*	.09	.21*
Perceptual dys.	.34*	.08	.39*	.18	.13	.25*	.23*	.16	.29*	.29*	.20	.28*	-.03	.12	-.01	.11
Unusual beliefs	.31*	.28*	.31*	.32*	.05	.09	.17	.24*	.29*	.31*	.25*	.31*	.11	.29*	.06	.29*
Antagonism	.40*	.22*	.38*	.02	.19	.19	.26*	.07	.54*	.23*	.46*	.24*	.23*	.11	.19	-.02
Attention-seek	.24*	.01	.22	-.03	.22*	.09	.12	.13	.25*	-.01	.27*	.02	.09	-.01	.19	-.09
Callousness	.42*	.19	.46*	.02	.19	.19	.36*	-.05	.49*	.25*	.39*	.28*	.20	.08	.10	-.01
Deceitfulness	.34*	.26*	.28*	.06	.02	.11	.17	.07	.54*	.26*	.40*	.23*	.25*	.19	.12	0
Grandiosity	.33*	.13	.35*	.01	.21	.21*	.27*	.04	.41*	.19	.35*	.19	.11	0	.15	0
Manipulativeness	.28*	.29*	.23*	.02	.10	.10	.14	.02	.48*	.22*	.43*	.24*	.27*	.16	.17	.04
Disinhibition	.43*	.12	.39*	.21*	.11	.08	.33*	.16	.33*	.26*	.24*	.05	.18	.09	.04	.06
Distractibility	.43*	.12	.28*	.18	.10	-.05	.27*	.13	.20	.24*	.20	.20*	.02	.14	-.09	.14
Impulsivity	.43*	.19	.36*	.20*	.11	.09	.26*	.13	.31*	.30*	.25*	.13	.18	.19	.03	.16
Irresponsibility	.47*	.21*	.47*	.14	.04	.13	.41*	.13	.37*	.27*	.25*	.20	.09	.11	.05	0
(Lack) Rig. perf.	-.25*	-.20	-.15	-.09	-.02	.03	-.06	.04	-.27*	-.12	-.27	-.31*	-.03	-.20*	-.01	-.20
Risk-taking	.27*	.27*	.32*	.37*	.11	.13	.18	.12	.51*	.29*	.37*	.14	.29*	.21*	.18	.20

Profile Similarities

CTS Psych.	.84	.66														
CTS Sexual	-.24	-.03	-.14	.07												
CTS Injury	.67	.12	.82	.54	-.08	.23										

APPENDIX C

Zero-Order Correlations Between PD Symptoms and Aggression and Antisocial Behavior, by Gender

	CTS Psych		CTS Phys		CTS Sexual		CTS Injury		RPQ Pro		RPQ React		CAB ASB		CAB Viol.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
EPA Antagonism	.37*	.26*	.38*	.18	.15	.06	.26*	.12	.45*	.36*	.42*	.36*	.21	.18	.13	.09
EPA Emot. Stab.	-.22	-.08	-.09	-.10	.04	-.02	-.14	-.01	-.01	-.04	-.09	-.15	0	-.14	.11	-.10
EPA Disinhib.	.43*	.43*	.23*	.37*	.04	.06	.13	.15	.54*	.53*	.58*	.46*	.51*	.35*	.32*	.30*
EPA Total	.26*	.29*	.24*	.21*	.11	.05	.10	.12	.48*	.40*	.43*	.29*	.36*	.16	.30*	.13
Avoidant PD	.29*	.11	.19	.16	.06	-.07	.16	.01	.11	.11	.21	.26*	-.06	.20	-.14	.16
Dependent PD	.20	.11	.25*	.21*	.09	.03	.09	.23*	.17	.23*	.17	.25*	-.06	.17	-.13	.03
OCPD	.28*	.20	.21*	.12	.01	.04	.15	0	.27*	.16	.37*	.35*	0	.11	-.01	.13
Passive																
Aggressive	.36*	.29*	.27*	.23*	.07	.09	.23*	.18	.39*	.36*	.47*	.45*	.20	.19	.11	.13
Depressive	.29*	.24*	.25*	.20	-.01	-.08	.20	.06	.22*	.19	.28*	.37*	.04	.22*	-.04	.17
Paranoid PD	.36*	.33*	.24*	.16	.12	0	.21	.11	.48*	.29*	.53*	.45*	.17	.23*	.21	.24*
Schizotypal PD	.20	.22*	.17	.28*	-.03	.06	.04	.14	.33*	.29*	.28*	.29*	.07	.28*	.02	.24*
Schizoid PD	.22	.13	.22	.10	-.01	.03	.20	-.01	.30*	.11	.26*	.14	.16	.13	.07	.08
Histrionic	.15	.09	.30*	.02	.06	.07	.17	0	.39*	.05	.29*	.17	.12	.09	.20	.04
Narcissistic	.29*	.23*	.34*	.17	.16	.11	.18	.11	.51*	.32*	.41*	.34*	.12	.23*	.15	.20
BPD	.49*	.31*	.45*	.30*	.13	-.01	.34*	.14	.43*	.44*	.45*	.51*	.13	.34*	.07	.30*
ASPD	.12	.46*	.04	.45*	-.05	-.06	-.04	.15	.73*	.64*	.43*	.48*	.45*	.55*	.44*	.50*

Profile Similarities										
CTS Phys	.79	.86								
CTS Sexual	-.24	-.50	-.16	-.47						
CTS Injury	.57	.08	.71	.31	.16	-.05				
RPQ Pro	.36	.86	.12	.77	-.53	-.46	-.18	.06		
RPQ React	.72	.73	.37	.53	-.51	-.59	.06	-.19	.82	.79
CAB ASB	.13	.89	-.08	.94	-.18	-.49	0	.17	.29	.82
CAB Viol.	-.22	.81	-.31	.87	-.10	-.44	-.22	.20	.12	.66
									.44	.86
									-.06	.92

Note. Bolded and italicized correlations represent correlations that significantly differ between men and women. CTS = Conflict Tactics Scale – 2; Psych = Psychological Aggression; Phys = Physical Aggression; RPQ = Reactive and Proactive Aggression Questionnaire; CAB = Crime and Analogous Behavior Scale; ASB = Antisocial Behavior; Viol. = Violent Behavior. EPA = Elemental Psychopathy Assessment; Emot. Stab = Emotional Stability subscale; Disinhib. = Disinhibition subscale. * $p < .01$.

APPENDIX D

Zero-Order Correlations Between Intimate Partner Aggression Perpetration and Victimization

	CTS Psych Perp	CTS Phys Perp	CTS Sexual Perp	CTS Injury Perp	CTS Psych Vict	CTS Phys Vict	CTS Sexual Vict	CTS Injury Vict
CTS Psych Perp								
CTS Psych Perp								
CTS Sexual Perp	.54*							
CTS Sexual Perp	.18*	.18*						
CTS Injury Perp	.41*	.71*	.16*					
CTS Psych Vict	.79*	.35*	.17*	.21*				
CTS Psych Vict	.52*	.80*	.15*	.43*	.51*			
CTS Sexual Vict	.31*	.25*	.80*	.14	.34*	.30*		
CTS Injury Vict	.48*	.88*	.14	.53*	.42*	.94*	.25*	

Note. * $p < .01$.