

PERSONALITY DISORDERS ACROSS GENDER AND PERSPECTIVE

A Dissertation

by

ALEXANDER JAMES BUSCH

Submitted to the Office of Graduate and Professional Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Chair of Committee,	Steve Balsis
Co-Chair of Committee,	Douglas Snyder
Committee Members,	Kathi Miner
	William Rae
Head of Department,	Heather Lench

August 2020

Major Subject: Clinical Psychology

Copyright 2019 Alexander Busch

ABSTRACT

The literature on personality disorders (PDs) is fraught with contradicting and unclear information on gender differences in prevalence and presentation. Although there are many potential explanations for this trend, there is a growing body of evidence to suggest that the discrepancies may be best explained by an over-reliance on self-reported information, sampling biases, and the tendency to assess PDs categorically rather than dimensionally. Self-reports offer only one perspective on PD symptoms and may be limited by the individual's insight and their willingness to report. The inclusion of informant reports may offer a different, but valid and beneficial perspective. Research to this point has shown that major differences can be observed across clinical, community, and other sample types and it may therefore also be beneficial to use carefully selected epidemiological samples in future studies. Furthermore, assessing PDs strictly categorically discounts important sub-threshold information. Dimensional assessment of PDs might reveal more meaningful and consistent trends.

The current investigation attempted to provide clarity to this literature by analyzing PD features dimensionally in a representative epidemiological sample of adults from the St. Louis Personality and Aging Network study, using both self- and informant-reported perspectives. Analyses were conducted to examine whether or not differences in PDs can be explained by gender, perspective, or an interaction between the two.

CONTRIBUTORS AND FUNDING SOURCES

First and foremost, I would like to name the members of my dissertation committee: Steve Balsis, Ph.D., Douglas Snyder, Ph.D., Kathi Miner, Ph.D., and William Rae, Ph.D. To each of them, I extend a very sincere “thank you” for their time and efforts. Without their supervision and contributions, this work would never have been possible. I am glad to have had this opportunity to work with these esteemed professors, and am eternally grateful to each of them for their guidance and support.

This work was also made possible by Thomas Oltmanns, Ph.D., who collected and graciously allowed our lab to use the data described and analyzed below. This work was supervised by the three committee members from the Department of Psychology, along with the department head Heather Lench, Ph.D., and Professor William Rae, Ph.D., of the Department of Educational Psychology. Graduate study was supported by the Summertime for Advancement in Research (STAR) fellowship award from Texas A&M University College of Liberal Arts. There are no other funding sources to note.

NOMENCLATURE

PD	Personality disorder
DSM	<i>Diagnostic and Statistical Manual of Mental Disorders</i>
SPAN	St. Louis Personality and Aging Network
MAPP	Multisource Assessment of Personality Pathology
NEO-PI-R	Revised NEO Personality Inventory
IRT	Item Response Theory
DIF	Differential Item Functioning

TABLE OF CONTENTS

	Page
ABSTRACT.....	ii
CONTRIBUTORS AND FUNDING SOURCES	iii
NOMENCLATURE	iv
TABLE OF CONTENTS.....	v
LIST OF FIGURES	vii
LIST OF TABLES	ix
1. INTRODUCTION	1
Personality Disorders.....	1
Challenges in the Assessment of Personality Disorders	15
Personality Disorders and Perspective.....	18
Personality Disorders and Gender	21
Personality Disorders across Gender and Perspective	29
2. METHODS	32
Participants and Informants	32
Procedure	34
Measures	34
Analyses	36
3. RESULTS	42
Paranoid Personality Disorder	42
Schizoid Personality Disorder.....	47
Schizotypal Personality Disorder.....	52
Antisocial Personality Disorder	56
Borderline Personality Disorder	60
Histrionic Personality Disorder.....	67
Narcissistic Personality Disorder.....	72
Avoidant Personality Disorder.....	76
Dependent Personality Disorder	80
Obsessive Compulsive Personality Disorder	85

Differential Item Functioning Analyses.....	89
4. DISCUSSION	92
Summary of findings.....	92
Clinical Implications.....	108
Limitations and Future Directions	109
Conclusions.....	112
REFERENCES	114

LIST OF FIGURES

FIGURE		Page
1	Self vs. Informant Reported Paranoid Personality Disorder Severity across Gender	46
2	Self vs. Informant Reported Schizoid Personality Disorder Severity across Gender: Criterion 3	50
3	Self vs. Informant Reported Schizoid Personality Disorder Severity across Gender: Criterion 7	51
4	Self vs. Informant Reported Schizotypal Personality Disorder Severity across Gender	55
5	Self vs. Informant Reported Antisocial Personality Disorder Severity across Gender	59
6	Self vs. Informant Reported Borderline Personality Disorder Severity across Gender	64
7	Self vs. Informant Reported Borderline Personality Disorder Severity across Gender: Criterion 1	65
8	Self vs. Informant Reported Borderline Personality Disorder Severity across Gender: Criterion 4	66
9	Self vs. Informant Reported Histrionic Personality Disorder Severity across Gender: Criterion 2	70
10	Self vs. Informant Reported Histrionic Personality Disorder Severity across Gender: Criterion 6	71
11	Self vs. Informant Reported Narcissistic Personality Disorder Severity across Gender	75
12	Self vs. Informant Reported Avoidant Personality Disorder Severity across Gender: Criterion 5	79
13	Self vs. Informant Reported Dependent Personality Disorder Severity across Gender: Criterion 7	83

FIGURE		Page
14	Self vs. Informant Reported Dependent Personality Disorder Severity across Gender: Criterion 8	84
15	Self vs. Informant Reported Obsessive Compulsive Personality Disorder Severity across Gender.....	88

LIST OF TABLES

TABLE	Page
1a Self vs. Informant Reported Paranoid Personality Disorder Severity across Gender (sample 1).....	44
1b Self vs. Informant Reported Paranoid Personality Disorder Severity across Gender (sample 2).....	45
2a Self vs. Informant Reported Schizoid Personality Disorder Severity across Gender (sample 1).....	48
2b Self vs. Informant Reported Schizoid Personality Disorder Severity across Gender (sample 2).....	49
3a Self vs. Informant Reported Schizotypal Personality Disorder Severity across Gender (sample 1).....	53
3b Self vs. Informant Reported Schizotypal Personality Disorder Severity across Gender (sample 2).....	54
4a Self vs. Informant Reported Antisocial Personality Disorder Severity across Gender (sample 1).....	57
4b Self vs. Informant Reported Antisocial Personality Disorder Severity across Gender (sample 2).....	58
5a Self vs. Informant Reported Borderline Personality Disorder Severity across Gender (sample 1).....	62
5b Self vs. Informant Reported Borderline Personality Disorder Severity across Gender (sample 2).....	63
6a Self vs. Informant Reported Histrionic Personality Disorder Severity across Gender (sample 1).....	68
6b Self vs. Informant Reported Histrionic Personality Disorder Severity across Gender (sample 2).....	69
7a Self vs. Informant Reported Narcissistic Personality Disorder Severity across Gender (sample 1).....	73

7b	Self vs. Informant Reported Narcissistic Personality Disorder Severity across Gender (sample 2).....	74
8a	Self vs. Informant Reported Avoidant Personality Disorder Severity across Gender (sample 1).....	77
8b	Self vs. Informant Reported Avoidant Personality Disorder Severity across Gender (sample 2).....	78
9a	Self vs. Informant Reported Dependent Personality Disorder Severity across Gender (sample 1).....	81
9b	Self vs. Informant Reported Dependent Personality Disorder Severity across Gender (sample 2).....	82
10a	Self vs. Informant Reported Obsessive-Compulsive Personality Disorder Severity across Gender (sample 1).....	86
10b	Self vs. Informant Reported Obsessive-Compulsive Personality Disorder Severity across Gender (sample 2).....	87
11	Summary of Exploratory Factor Analysis Results for all Personality Disorders.....	90
12	Summary of Self vs. Informant Reported PD Severity across Gender for all PDs...	91

1. INTRODUCTION

The following introduction section begins with an overview of Personality Disorders (PDs) that describes their history, current conceptualization in the *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (DSM-5), and lists all of the symptoms that make up the diagnostic criteria for each of the ten PDs. The overview will also note general estimates of their prevalence in the population, then subsequently describe the many challenges in the assessment of PDs that may compromise the validity of these estimates. Two of the most prominent challenges in the assessment of PDs are over-reliance on self-report and poorly understood gender differences. In response to these challenges, the introduction will go on to describe the potential benefits of considering other perspectives, such as informant-reports, when assessing PD symptoms along with a summary of the results of studies that have done so. The introduction will then review the literature to this point on PDs as they relate to gender, including differences in prevalence and presentation as well as potential measurement bias. Finally, the introduction will explain how the current investigation can provide clarity to the literature through the use of both self- and informant reported data examined dimensionally across gender.

Personality Disorders

Attempts to systematically understand personality and its maladaptive variant, PDs, have been the subjects of scientific endeavors that extend as far back into history as ancient Greek and Chinese philosophy, and are still to this day part of an ongoing and rapidly developing investigation (Crocq, 2013). One of the most notable advancements in the history of these endeavors came from Emil Kraepelin near the start of the twentieth century. Kraepelin was

among the first to describe the interaction between normal personality and what we consider today to be abnormal personality pathology. He suggested that there is a meaningful overlap between overt pathological conditions and personal features that are encountered in normal people and that the difference between pathological and normal is gradual (Crocq, 2013).

Kraepelin went on to publish definitions of four “psychopathic personalities” known as the born criminal, the irresolute (or weak-willed), the swindler (or pathological liars), and the pseudoquerulant (or the paranoid) (Kraepelin, 1904). In this early work, Kraepelin began to define personality types in a fashion similar to the diagnostic system we use today.

Following Kraepelin’s and others’ work, maladaptive variants of personality were defined as parts of a formal diagnostic system when personality disorders (PDs) were included in Axis II of the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition* (DSM-III; American Psychiatric Association, 1980). PDs in DSM-III were operationally defined as categorical personality types marked by the presence of a minimum number of maladaptive symptoms, or PD criteria. These PD criteria are used to characterize and diagnose PDs. This systemized standardization in the widely used diagnostic manual became a major catalyst for advancing the study of personality pathology (Blashfield & Intoccia, 2000). As the study of PDs has continued, PDs have remained a part of the DSM, which is now in its fifth edition (American Psychiatric Association, 2013).

In the DSM-5, a PD is defined as “an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual’s culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment” (American Psychiatric Association, 2013, p. 645). Although individuals with PDs likely demonstrate symptoms in their childhood, a formal diagnosis of a PD is typically

not given until the individual is at least 18-years-old. This is due to the fact that personality develops over a lifetime, and assigning a diagnosis of a PD in such an early developmental stage may preemptively assign a diagnosis to symptoms that either disappear or substantially change as the individual grows and enters into adulthood. Notably, the definition also states that PDs are both pervasive and stable over time, which emphasizes the importance of measuring longstanding patterns of thinking, feeling, and behaving across the lifespan. Finally, the definition of PDs provided by the DSM-5 also explicitly describes them as leading “to distress or impairment” and thereby characterizes them as maladaptive. Most typically, PDs manifest as poorly defined self-concepts and problems when interacting with others.

To describe and organize differences in personality pathology, the DSM-5 contains ten distinct PDs, which are organized into three different clusters (American Psychiatric Association, 2013). Cluster A, the odd-eccentric cluster, includes paranoid PD, schizoid PD, and schizotypal PD. Cluster B, the dramatic-emotional cluster, includes antisocial PD, borderline PD, histrionic PD, and narcissistic PD. Cluster C, the anxious-fearful cluster, includes avoidant PD, dependent PD, and obsessive-compulsive PD. Research on the prevalence of PDs from each cluster has indicated that approximately 5.7% of people have a PD from Cluster A, 1.5% from Cluster B, and 6.0% from Cluster C (Lenzenweger, Lane, Loranger, & Kessler, 2007). Notably however, there is also substantial evidence indicating frequent co-occurrence among PDs (Lenzenweger et al., 2007; Stuart, Pfohl, Battaglia, Bellodi, et al., 1998). Further still, this clustering system has not been consistently validated and is useful only in limited research and educational situations.

Unlike the clustering system, the specific criteria that make up each PD are frequently used in a variety of capacities and have become the defining features of the disorders. As such, the criteria are often a major focus in assessment, research, and treatment of PDs. The present

study is no exception to this, and therefore includes evaluations of all of the PD criteria from the perspectives of both selves and informants. Below is a description of each PD that lists the specific diagnostic criteria from the DSM-5 (American Psychiatric Association, 2013). Each description also contains some initial, albeit at times conflicting, information on the prevalence of the disorder.

Paranoid PD. The defining features of Paranoid PD are a pattern of pervasive distrust and suspiciousness of others and a tendency to interpret their motives as malevolent (American Psychiatric Association, 2013). A person with paranoid PD is likely to form suspicions of others' attempts to deceive, harm, or exploit them even in the absence of sufficient evidence to form this basis (Criterion 1). In their relationships they tend to both doubt trustworthiness of the other person (Criterion 2) and are reluctant to trust in or confide in others (Criterion 3). A person with Paranoid PD may be likely to read hidden threatening messages into benign events (Criterion 4), bear grudges (Criterion 5), and perceive attacks on their character and then angrily counterattack (Criterion 6). Finally, it is also not uncommon for an individual with Paranoid PD to suspect that their romantic partner has engaged in infidelity (Criterion 7). A diagnosis of Paranoid PD involves the endorsement of four or more of the listed criteria to be considered above the categorical threshold. Research on the prevalence of Paranoid PD using various samples suggests that it occurs in 2.3% (Lenzenweger et al., 2007), 4.4% (Grant et al., 2004), and 1.9% (Trull et al., 2010) of the general population.

Schizoid PD. Schizoid PD involves a pattern of detachment from social relationships and a restricted range of emotional expression. A person with schizoid PD is likely to lack a desire for intimacy and close relationships (Criterion 1) and typically prefer solitary activities (Criterion 2). Individuals with this disorder tend to have little interest in sexual experiences (Criterion 3),

take pleasure in very few activities (Criterion 4) and often have few, if any, close friends or confidants (Criterion 5). A person with schizoid PD is also typically indifferent toward the approval or criticism of others (Criterion 6) and rarely display any form of visible emotional reactivity (Criterion 7). A diagnosis of schizoid PD requires the presence of at least four of these seven criteria. The prevalence of schizoid PD in the general population has been estimated to range from 3.1% (Grant et al., 2004) to 4.9% (Lenzenweger et al., 2007).

Schizotypal PD. Schizotypal PD is marked by acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behavior. A person with schizotypal PD is likely to experience ideas of reference (Criterion 1), odd beliefs (Criterion 2), unusual perceptual experiences (Criterion 3), odd thought and speech patterns (Criterion 4), and paranoid ideation (Criterion 5). The individual with this disorder may also demonstrate inappropriate or constricted affect (Criterion 6) and engage in eccentric and peculiar behaviors (Criterion 7). As a result, the individual with schizotypal PD is also likely to lack close friends and confidants (Criterion 8), and experience social anxiety associated with paranoid fears (Criterion 9). A diagnosis of schizotypal PD requires the presence of at least five or more of these nine criteria. It should be noted that the diagnosis of schizotypal PD requires that these behaviors do not occur exclusively during the course of schizophrenia, bipolar disorder, depressive disorder with psychotic features, or another psychotic disorder. The prevalence of schizotypal PD has been found to vary depending on sample types across settings. Community samples have indicated that the prevalence can range from 0.6% to 4.6% (Lenzenweger et al., 2007) while samples from clinical populations seem to indicate a somewhat lower prevalence ranging from 0% to 1.9% (Pulay et al., 2009).

Antisocial PD. Antisocial PD involves a pattern of disregard for, and violation of, the rights of others. A diagnosis of antisocial PD requires evidence of conduct disorder occurring before the individual is 15-years-old along with the presence of at least three or more of the following seven criteria. An individual with antisocial PD has repeatedly performed acts that are ground for arrest (Criterion 1) and often engages in deceitfulness, such as lying or conning, for their own personal benefit (Criterion 2). They often display impulsivity (Criterion 3), irritability and aggressiveness (Criterion 4), reckless disregard for safety (Criterion 5), irresponsibility (Criterion 6), and lack of remorse (Criterion 7). Antisocial PD is yet another PD that has varying estimates of prevalence, especially across sample type and gender. Some studies have indicated the prevalence of antisocial PD to be as low as 0.2%, while others have indicated it is near 3.3% (Goldstein et al., 2007; Lenzenweger et al., 2007; Torgersen et al., 2001). When observed in clinically severe samples of men with alcohol use disorder, the prevalence has been found to be greater than 70% (Bucholz et al., 2006). Similarly, prevalence estimates have been found to be higher in samples from clinics, prisons, and other forensic settings (Moran et al., 1999). Taken together, these findings suggest there are potential effects of both gender and sample type that must be considered when examining antisocial PD.

Borderline PD. Borderline PD consists of unstable affect, problems in interpersonal relationships, impulsivity, and identity disturbances. A person with borderline PD is likely to make frantic efforts to avoid abandonment (Criterion 1), have unstable and intense relationships (Criterion 2), and have an unstable self-image (Criterion 3). They are also likely to engage in impulsive, self-harm behaviors (Criterion 4) and recurrent suicidal behavior (Criterion 5). Their mood is often characterized by unstable affect (Criterion 6), chronic feelings of emptiness (Criterion 7), intense anger (Criterion 8), and stress-related paranoia or dissociation (Criterion 9).

A diagnosis of borderline PD is assigned based on the presence of five or more of these nine criteria. The prevalence of borderline PD varies substantially depending on the characteristics of the sample. Studies have estimated the prevalence of borderline PD to be 1.6% (Torgersen, 2009), 1.8% (Swartz, Blazer, George, & Winfield; 1990), 2.7% (Trull et al., 2010), and 5.9% (Grant et al., 2008). Prevalence estimates rise to 6% in primary care settings, 10% in outpatient mental health clinics, and to 20% in psychiatric inpatient units (Gunderson 2011; Gunderson & Links, 2008). In addition to these variations across clinical settings, the prevalence of borderline PD also varies depending on age group (Oltmanns & Balsis, 2011) and gender (Busch, Balsis, Morey, & Oltmanns, 2016; described in further detail below). Thus, borderline PD marks another PD that is in need of further research to better understand and clarify its prevalence.

Histrionic PD. Histrionic PD is a pattern of excessive emotionality and attention seeking. A person with histrionic PD is likely to be uncomfortable when they are not the center of attention (Criterion 1). In their interactions with others, they often engage in inappropriate sexually seductive or provocative behavior (Criterion 2), display rapidly shifting and shallow expressions of emotions (Criterion 3), and use their physical appearance to draw attention (Criterion 4). An individual with this disorder may also be likely to have an excessively impressionistic style of speech (Criterion 5), show self-dramatization and theatricality (Criterion 6), be highly suggestible (Criterion 7) and consider relationships to be more intimate than they actually are (Criterion 8). A diagnosis of histrionic PD requires the presence of at least five or more of these eight criteria. The prevalence of histrionic PD has been estimated to range from 1.84% (Grant et al., 2004) to 2.1% (Nestadt, Romanoski, Cahal, & Merchant, 1990). Histrionic PD has traditionally been considered to be more common in females, but studies have also indicated that males and females are equally affected (Nestadt et al., 1990). Similarly to

antisocial PD and borderline PD, histrionic PD may be another PD that requires more research to better understand prevalence differences across gender. Failure to provide clarity in the understanding of these Cluster B PDs could lead to diagnostic inaccuracy that hinders treatment effectiveness.

Narcissistic PD. Narcissistic PD is characterized by a pattern of grandiosity, need for admiration, and a lack of empathy. A diagnosis of narcissistic PD using the DSM-5 includes the presence of at least five of the following nine criteria: a grandiose sense of self-importance (Criterion 1), preoccupation with fantasies of their own success (Criterion 2), believes that he or she is more “special” than others (Criterion 3), demands of excessive admiration (Criterion 4), a sense of entitlement (Criterion 5), is interpersonally exploitative (Criterion 6), lacks empathy (Criterion 7), is often envious (Criterion 8), and displays arrogant behaviors or attitudes (Criterion 9). Research on the prevalence of Narcissistic PD ranges from 0% to 6.2% in community samples (Dhawan, Kunik, Oldham, & Coverdale, 2010) and was estimated to be 1.0% using an epidemiological sample (Trull et al., 2010). One potential explanation for these varying estimates is that the grandiosity and emphasis on positive self-presentation inherent in narcissistic PD make it difficult to assess and interpret the information uncovered in self-reports. If this is indeed the case, informant reports may offer an insightful perspective.

Avoidant PD. Avoidant PD is a pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation. A person diagnosed with avoidant PD tends to avoid activities that involve interpersonal contact because of fears of criticism, disapproval, or rejection (Criterion 1). They also are typically unwilling to get involved with people unless they are sure they will be liked (Criterion 2). They commonly show restraint within intimate relationships (Criterion 3), are often preoccupied with thoughts of being rejected or criticized (Criterion 4),

and are inhibited in new interpersonal situations because of feelings of inadequacy (Criterion 5). A person with avoidant PD usually views themselves as socially inept, unappealing, or inferior (Criterion 6), and is unusually reluctant to take personal risks that may prove embarrassing (Criterion 7). A diagnosis of avoidant PD requires four or more of the seven listed criteria. The prevalence of avoidant PD in the general population has been estimated to be approximately 2.4% (Grant et al., 2004).

Dependent PD. Dependent PD is characterized by submissive behavior and an excessive need to be taken care of. A person with dependent PD tends to have difficulty making every day decisions (Criterion 1), needs others to assume responsibility for areas of their life (Criterion 2), has difficulty expressing disagreement because of fear of loss of support (Criterion 3), and has difficulty doing things on their own (Criterion 4). They may also go to excessive lengths to obtain nurturance and support (Criterion 5), feel helpless because of fears they cannot take care of themselves (Criterion 6), urgently seek another relationship when a relationship ends (Criterion 7), and be unrealistically preoccupied with fears of being left to take care of themselves (Criterion 8). A diagnosis of dependent PD requires the presence of five or more of these eight criteria. The prevalence of dependent PD in the general population has been estimated to be particularly low across multiple studies, at 0.49% (Grant et al., 2004) and 0.6% (Lenzenweger et al., 2007). In this way, dependent PD is one of the few PDs with consistent estimates of its prevalence.

Obsessive-Compulsive PD. A diagnosis of obsessive-compulsive PD involves a pattern of preoccupation with orderliness, perfectionism, and control. A person with a diagnosis of obsessive-compulsive PD is likely to be preoccupied with details, rules, order, and organization to the extent that the major point of the activity is lost (Criterion 1). This person is also likely to

show perfectionism that interferes with task completion (Criterion 2) and be excessively devoted to work and productivity to the exclusion of leisure activities and friendship (Criterion 3). They may be overconscientious and inflexible (Criterion 4), unable to discard worthless objects (Criterion 5), and reluctant to delegate tasks (Criterion 6). An individual with this disorder may also be likely to adopt a miserly spending style (Criterion 7) and show rigidity and stubbornness (Criterion 8). A diagnosis of obsessive-compulsive PD requires the presence of at least four or more of these eight criteria. The prevalence of obsessive-compulsive disorder in the general population has been estimated to range from 2.1% to 7.9% (Grant et al. 2004; Lenzenweger et al. 2007; Torgersen 2009).

In addition to the 10 PDs, the DSM-5 also contains a “catch-all” diagnostic category known as PD Not-Otherwise-Specified (PD-NOS) for individuals with a personality pattern marked by the presence of symptoms of several different PDs, but not enough to meet criteria for any specific PD. PD-NOS can also at times be applied to individuals who are considered to exhibit symptoms of a PD that is not included in the DSM-5 (e.g., passive aggressive PD) (American Psychiatric Association, 2013).

Prevalence. As can be seen above in the descriptions of each PD, the initial information on the prevalence of specific PDs is often unclear and presented as a large range. Estimates of the prevalence of PDs, both generally and specifically, have been found to vary based on measurement procedures, perspective of the assessment (e.g. self-report, informant report, clinician ratings), and sample characteristics. For example, some studies estimate the prevalence of PDs in the population to be as low as 4.4% (Coid, Yang, Tyrer, Roberts, & Ullrich, 2006) while others suggest that the prevalence may be as high as 13.4% (Torgersen, Kringlen, & Cramer, 2001) or even as high as 15% of all adults having at least one PD (Grant, Hasin, Stinson,

et al., 2004). There are also multiple studies that suggest the prevalence rate of PDs is about 9% in Western societies (Lenzenweger et al., Samuels et al., 2002; Trull, Jahng, Tomko, Wood, & Sher, 2010). When considering different sample characteristics, such as the difference between community and clinical samples, the ranges of estimates of the prevalence become even wider. In clinical settings prevalence rates of PDs are significantly higher, to such an extent that nearly one-third of individuals in a large clinical sample met diagnostic requirements for a PD (Zimmerman, Rothschild, Chelminski, 2005). The research on PDs to this point has shown that it is difficult to conclusively determine the prevalence of PDs. The body of literature on PD prevalence may potentially benefit from more research that examines PDs across multiple perspectives at once and uses carefully selected epidemiological, clinical, and community samples.

Impairment. Maladaptive impairments in psychosocial functioning are integral to the definition of PDs. Beyond the maladaptive requirement inherent in each of the PDs themselves, PDs are also associated with impairments in functioning more broadly (Skodol, Gunderson, McGlashan et al., 2002). PDs are associated with comorbidity to a large number of other clinical diagnoses such as depression, anxiety, and substance use (e.g. Clark, 2007). Individuals with PDs are more likely than those without a PD to be separated, divorced, or never married (Drake & Vaillant, 1985; McGlashan, 1986; Modestin & Villiger, 1989; Nakao et al., 1992; Pfohl, Strangl, & Zimmerman, 1984; Shea, Glass, Pilkonis, Watkins, & Docherty, 1987; Torgersen, 1984; Zimmerman & Coryell, 1989;). Similarly, individuals with PDs have been found to be more likely to have had periods of unemployment, more frequent job changes, and more periods of disability (Drake & Vaillant, 1985; McGlashan 1986; Modestin & Villiger, 1989; Paris, Brown, & Nowlis, 1987; Reich, Yates, & Nduaguba, 1989;). A diagnosis of a PD or PDs has

also been associated with global functioning impairment (Drake & Vaillant, 1985; Herbert, Hope, & Bellack, 1992; Klass, DiNardo, & Barlow 1989; Levy et al., 1999; McGlashan 1983, 1986; Mehlum et al., 1991; Nace, Davis, & Gaspari; 1991; Paris, Brown, & Nowlis, 1987; Plakun, Burkhardt, & Muller, 1985; Pope, et al., 1990; Turner et al., 1991), treatment utilization (Bender et al., 2001), increased use of medical resources (Powers, Strube, & Oltmanns, 2014), and suicide (Wasserman, 2016). Both the breadth and the severity of clinical impairments that result from PDs make the study of assessment and treatment of PDs imperative.

Stability. PDs have traditionally been considered to be stable over time, to such an extent that for decades they were placed on a separate axis (Axis II) in previous editions of the DSM to highlight the difference between them and the episodic disorders contained in Axis I (Grilo et al., 1998). However, some research has indicated that aspects of PDs can improve over time (Bateman & Fonagy 2000, Morey & Meyer 2012, Zanarini et al. 2010), while other studies have indicated that aspects of PDs may actually worsen as individuals age (Cooper, Balsis, & Oltmanns, 2014). Regardless of the direction, this developing body of literature suggests that PDs may not be as stable and resistant to change as previously hypothesized. In a recent review of this complex issue, results from multiple longitudinal studies of PDs revealed that the stability of PDs may be influenced by multiple factors including the reliability of the instruments being used, the way stability is defined, and on how PD constructs are defined (Morey & Hopwood, 2013). Similarly to conceptualizations of PD stability, new conceptualizations of how PDs should be defined are beginning to be raised, examined, and debated.

Categorical and Dimensional Models of PDs. In the DSM-5, PDs are classified categorically, in that each disorder is either considered present or absent. However, there have been critiques of the categorical approach since it was first introduced in 1980 with the

publication of DSM-III (Frances, 1980; Frances 1982). Over the past four decades, a large body of research has grown that details problems with the categorical approach and presents evidence to suggest a dimensional approach may be more effective (reviewed in Morey, Benson, Busch, & Skodol, 2015; also see Haslam, Holland, & Kuppens, 2012; Trull & Durrett, 2005). First, reliability has been found to be lower for categorical approaches to assessing PDs as compared to dimensional approaches (Heumann & Morey, 1990). Second, there is extensive co-occurrence among PDs to the extent that most patients diagnosed with a PD meet criteria for more than one (Grant, Hasin, Stinson, Dawson, Chou, & Ruan, 2005; Zimmerman & Rothschild, 2005), making co-morbidity the rule rather than the exception. Additionally, there is heterogeneity within PD categories that can lead to cases in which two different individuals that meet criteria for the same PD may have wildly different presentations (Johansen, Karterud, Pedersen, Gude, & Falkum, 2004). For example, in borderline PD five of nine features are needed to meet the diagnostic threshold, which means that mathematically there are 256 different ways to meet or exceed it. The categorical model groups all 256 of these different combinations into one diagnostic category, despite the fact that the presence of different symptoms are likely to lead to varying severities of the disorder and to different presentation. In fact, two patients with the same BPD diagnosis may have only one overlapping PD symptom.

Along with heterogeneity within specific PDs, the current categorical model also frequently is unable to even provide a specific PD diagnosis. In a meta-analytical examination of the coverage of personality provided by the current categorical model it was revealed that PD-NOS is actually the most common PD diagnosis assigned in clinical practice and among the most common PD diagnoses in research (Verheul & Widiger, 2004). Another issue raised with the current categorical model is that the creation of the diagnostic thresholds was somewhat arbitrary

and based on minimal empirical evidence (Widiger & Trull, 2007). This has potential implications in studies of the prevalence of PDs, in that PDs may be found to be more or less prevalent if different diagnostic thresholds are considered. Furthermore, the different diagnostic thresholds and different combinations of PD criteria have been found to correspond to different levels of latent pathology (Balsis, Lowmaster, Cooper, & Bengt, 2011). Given that individuals can have low, medium, or high degrees of severity of different PDs, imposing the use of a threshold discounts potentially important information across the entire continuum. In particular, combinations of subthreshold PD pathology have been found to be related to impairment (Skodol et al., 2005) and in some cases are even indicative of more latent PD severity than above threshold combinations (Cooper & Balsis, 2009; Cooper, Balsis, & Zimmerman, 2010).

In response to these problematic findings, researchers put forth a dimensional model of PDs (Skodol, Clark, Bender, Krueger, Morey, Verhuel, et al., 2011) that has been included as an alternative model in Section III of the DSM-5 (American Psychiatric Association, 2013). The alternative model consists of a dimensional rating of overall personality functioning, a set of 25 specific maladaptive trait facets, (e.g. Anxiousness, Emotional Lability, Submissiveness), and six retained PD categories along with the new PD-trait specified (PT-TS) diagnosis that replaces PD-NOS. This alternative dimensional model for the assessment of PDs is still newly developed, but already has accrued a large number of studies on its reliability, validity, and utility (Morey, Benson, Busch, & Skodol, 2015). In efforts to make alternative model information more accessible, researchers have developed methods for measuring the alternative model constructs using already established and routinely used measures such as the Minnesota Multiphasic Inventory, Second Edition (MMPI-2; Greene, 2000) and MMPI-2 Restructured Form (MMPI-2-RF; Ben-Porath, 2012) as detailed by Sellbom, Anderson, & Bagby (2013) and the Personality

Assessment Inventory (PAI; Morey 1991) recently explored by Busch, Morey, & Hopwood (2017). These recent developments may allow for efficient, convenient, and reliable measurements of PDs as dimensional constructs.

The problems described above in using a solely categorical approach along with the recent advancements in the field toward the use of a newly developed model places a heavy importance on assessing PDs dimensionally. Similarly, the benefits of more granular, dimensional assessments of PDs cannot be understated, including increased precision, making use of subthreshold data, and information on which features are present and to what degree of severity. However, the decision passed down by the American Psychiatric Association to retain the categorical model of PDs, the decades of research on the categorical model to this point, and the practical limitations that come with dissemination of knowledge and training on a new model all indicate that there is still need for research that examines PDs according to the categorical model. All in all, the field's current situation strongly emphasizes the need for research that can simultaneously measure PDs dimensionally and still be easily mapped on to the current categorical model of PDs.

Challenges in the Assessment of Personality Disorders

The field of personality psychopathology currently faces challenges that extend beyond how PDs are defined. Given the nature of these constructs and the fact that the field primarily relies on self-reported information, PDs are particularly difficult to assess relative to other disorders. Indeed past research has shown that there are many aspects of a person's personality that they may be hesitant to endorse or unable to detect (Vazire, 2010), and this problem is likely to be even more pronounced in PDs, the extreme maladaptive variants. The most notable challenges in the assessment of PDs are limitations of the individual's insight, their motivation or

willingness to report, and the egosyntonic (i.e. consistent with self-image) nature of many PD symptoms.

The individual's insight into their own PD related behaviors is often limited in that those with PDs may have an especially difficult time observing the ways in which their maladaptive personality features affect those around them (Carlson & Oltmanns, 2015; John & Robins, 1994; Oltmanns, & Strauss, 1998). The person may lack self-awareness or have "blind spots" in their personality makeup, such that they are unaware of their own personality features and are thus unable to report on them. For example, a person with borderline PD may indeed exhibit unstable affect marked by rapidly shifting emotions (Criterion 6) but lack the emotional awareness to recognize these rapid and frequent shifts in their mood as a persistent pattern. Furthermore, Thomas (1996) found that self-reported information from BPD patients can significantly vary alongside fluctuating moods to the extent that their insight may be compromised. Therefore, the individual's insight into their own PD symptom expression may be subject to change based on their emotional state, memory capabilities, or a number of other contextual factors. As a result, self-reported information of PD features could be limited or distorted.

Lack of insight and awareness is not the only factor that can distort self-reported information. It is also possible that the individual is motivated to portray themselves in an overly positive or negative light, then subsequently engages in impression management. Due to the pathological nature of PDs coupled with their social stigma, it is often desirable for individuals to (purposefully or unconsciously) present themselves as less pathological than they actually may be. In certain circumstances however, individuals may malingering PD pathology, such as when doing so could potentially lead to secondary gains. In a large meta-analysis, impression management was found to influence self-reported information to such an extent that it could be

said people often “provide different pictures” of their problems (Achenbach, Krukowski, Dumenci, & Ivanova, 2005; p. 370). The assessment of PDs may be improved in certain circumstances by including an informant who is less likely to be influenced by motivation to portray the target individual in any overly positive or negative light.

Finally, the assessment of PDs is also made complicated by the egosyntonic nature of many of the symptoms that make them particularly likely to be overlooked or distorted (Kernberg, 1984). Egosyntonic describes symptoms that are consistent with the person’s self-concept. For example, an individual with narcissistic PD may have a grandiose sense of self-importance (Criterion 1), believe that he or she is more “special” than others (Criterion 3), and therefore demand excessive admiration (Criterion 4). From the individual’s perspective, their grandiosity, specialness, and the admiration they demand are all completely deserved and reasonable. Therefore, they would be unlikely to view these symptoms as problematic, excessive, or abnormal. Indeed past research has shown that narcissistic grandiosity is likely to affect an individual’s ability and willingness to accurately self-report on their own narcissistic symptoms (e.g. Raskin, Novacek, & Hogan, 1991). Rather than recognizing and accurately reporting on their symptoms, the individual with narcissitic PD may actually be more likely to view those around them as mistaken in some way for not recognizing their perceived positive qualities and providing them with admiration.

Narcissistic PD is far from the only PD to contain egosyntonic symptoms. In fact all ten of the PDs contain egosyntonic symptoms to varying degrees. As another example, an individual with borderline PD may have particular difficulty reporting on their intense anger (Criterion 8), given that anger is often considered to be egosyntonic (Howells, 1998). The individual’s perception of the anger may be skewed to such an extent that they view their anger as an

appropriate response to the situation, rather than a disproportionately intense outburst. The egosyntonic nature of PD symptoms, along with the individual's limited insight, and their willingness to accurately report on their PD symptoms strongly emphasize the need for considering other perspectives, such as informant reports.

Personality Disorders and Perspective

Informant Reports. Informants who know the target individual well may be well-suited to providing information on the target's PD symptoms without being hindered by the limitations of self-reports described above. First, the informant may be able to observe the target's behaviors as they interact with them or with others. This perspective may grant the informant insight into how the targets potentially symptomatic behaviors impact others around them. Such information may oftentimes elude the target in self-reports. Second, the informant is less likely to be as personally invested in the results of the assessment as the target given that the results do not apply to them and secondary gains are less likely to apply to them. Therefore, informants may be less likely than selves to engage in either positive or negative impression management. Third, because the informants are reporting on PD symptoms that are not their own, they are less likely than selves to be ego-involved and influenced by egosyntonic symptoms.

Informant reports provide additional benefits beyond addressing the issues described above. For example, individuals with borderline PD are likely to experience affective instability (Criterion 6) that can interfere with self-reports (Thomas, 1996; Trull et al., 2008). Informants on the other hand, are less prone to intense affect compared to individuals with borderline PD features (Santangelo, Bohus, & Ebner-Priemer, 2014) and may in turn be able to provide a more stable perspective that is less influenced by emotional turbulence (Santangelo, Reinhard, et al., 2014). Furthermore, in terms of emotional reactivity, it is also possible that selves have

significant affective reactions to item content (Sansone & Sansone, 2010), such as individuals with borderline PD becoming distressed if the item content contains unpleasant cognitions or emotions (Cheavens et al., 2005; Gratz, Rosenthal, Tull, Lejuuz, & Gunderson, 2006; Rosenthal et al., 2005). As the informants are not reporting on their own symptoms, the specific item content is at least one step removed from their own personal experience. This may allow them to respond without being as hindered by emotional reactivity as targets. This trend toward comparatively better reliability in informant reports seems to exist in broader contexts than just emotional reactivity. Meta-analytic reviews of literature on informant reports of PDs found data to suggest informant reports may be more reliable overall and their inclusion may improve the validity of diagnostic assessment (Achenbach, Krukowski, Dumenci, & Ivanova, 2005; Klonsky & Oltmanns, 2002).

Informant reports however, like self-reports, are not without limitations. For example, informants may not know the target individual well enough to accurately report on certain symptoms. Similarly, they may only know the target individual in certain contexts and not be able to observe them in contexts their PD symptoms may typically manifest. Furthermore, while a major strength of self-reports is that they uniquely provide insight into the individual's thoughts, intentions, feelings, and motivations (Mount, Barrick, & Strauss, 1994), informant reports on the other hand are unable to access this information. The strengths and weaknesses of each perspective suggest that the use of only a single method of assessment could yield an incomplete or biased understanding of an individual (Meyer et al., 2001). Studies have shown that both self-reports and informant reports provide a unique and at least partially valid perspective (Vazire & Mehl, 2008) and it would therefore be beneficial to include both perspectives when measuring PDs.

Agreement of Self- and Informant Reports. When self- and informant reports have been assessed together, they have tended to show positive, yet very low, agreement (Carlson, Vazire, & Oltmanns, 2013; Clifton, Turkheimer, & Oltmanns, 2004, 2005; Klonsky & Oltmanns, 2002; Lawton, Shields, & Oltmanns, 2011; Miller, Pilkonis, & Clifton, 2005; Samuel & Widiger, 2010; Hyler, Rieder, Williams, Spitzer, Lyons, & Hendler, 1989). The differences in the strengths and weaknesses of each perspective likely account for much of this trend. Other contributing factors include the observability of certain traits and behaviors and how well the targets and informants know each other, in that increased observability (Funder & Doboorth, 1987) and more well-acquainted dyads (Funder & Colvin, 1988) tend to lead to stronger agreement. Another contributing factor is the potential for each perspective to differently assess the latent PD continuum. This was recently explored by Balsis, Loehle-Conger, Busch, Ungredda, & Oltmanns (2017) using an Item Response Theory (IRT) analysis of the borderline PD continuum using both self- and informant reported information. This study revealed that informants reported on borderline PD symptoms with more precision and at lower levels of severity than did the targets. These findings with borderline PD may suggest that self- and informant reports of all PD symptoms may differ with respect to how they relate to the underlying latent dimension and at what degree of severity they each provide information.

Drawing Different Conclusions. If self- and informant reports both provide valid information, but also tend to show rather low agreement, it may be possible for each of them to provide different answers to the same questions. This can be explained by the fact that each perspective likely accounts for different amounts of the variance in each PD, with potentially different amounts of overlapping variance for each PD. Recent research has revealed that this is indeed the case; there are differences in the amount of variance each perspective accounts for in

the assessment of PDs. For example, Miller, Pilkonis, and Clifton (2005) found that the addition of informant-reported personality scores to self-reported personality scores accounted for an additional 8% to 20% of the overall variance in PD features. This means that each perspective may be partially valid, but has different access to information or different ability or willingness to report. These differences can potentially lead to each perspective drawing a different conclusion.

The different conclusions that have been drawn on the amount of personality pathology a person exhibits are primary examples of this phenomenon. Informants have been found to reveal additional personality pathology (Klonsky, Oltmanns, & Turkheimer, 2002; Zimmerman et al., 1986; Zimmerman, 1994) that selves were unwilling or unable to report on. These findings are further supported by IRT analyses which revealed that informants were more sensitive than selves when reporting on features of narcissistic PD (Cooper, Balsis, & Oltmanns, 2014) and borderline PD (Balsis, Loehle-Conger, Busch, Ungredda, & Oltmanns, 2017). However, there are also studies that have found no difference in levels of pathology reported, and others that have found that selves report more pathology than informants (e.g., Riso, Klein, Anderson, Ouimette, & Lizardi, 1994), so this trend may still require additional research. In either case, the potential for each perspective to suggest a target has different levels of PD pathology could lead a researcher or clinician to draw different conclusions about whether or not to assign a diagnosis of the disorder, what the overall prevalence of the disorder is, how to inform treatment planning and prognosis, and many other important clinically relevant questions.

Personality Disorders and Gender

One of the primary areas in the study of PDs in which these clinically relevant questions are raised is in the relationship between PDs and gender. Are certain PDs more common for men

or women? Does the presentation of each disorder differ across gender? If the answers to these and other questions are yes, are the observed differences due to naturally occurring gender effects or to gender bias in our measurement and understanding of PDs? Obtaining the answers to these questions will require research on PDs that is specifically focused on examining the effects of gender.

Prevalence Differences. Examinations of the prevalence of PDs across gender have produced conflicting and unclear results. Results from a large-scale meta-analysis suggests that the diagnoses of any PD, antisocial PD, and narcissistic PD were significantly more common in men than women (Trull et al., 2010). Meanwhile, paranoid PD, borderline PD, histrionic PD, avoidant PD, obsessive-compulsive PD, and dependent PD were found to be significantly more common in women than men (Trull, Jahng, Tomko, Wood, & Sher, 2010). However, these findings are both supported and contradicted by other studies. For example, Golomb, Fava, Abraham, and Rosenbaum (1995) found evidence to support that antisocial PD and narcissistic PD are more common in men, but found no evidence of higher prevalence for women in any of the PDs. This study utilized measures that incorporate both self-reported and clinician-rated information, which may suggest that these findings are not the result of mono-method limitations. The contradictions in these studies are part of a larger trend in which the prevalence of PDs across gender is consistently unclear across a large number of studies.

The literature on borderline PD, the most heavily studied PD and one of the most heavily debated with regard to gender, can be reviewed to illustrate the enormity of this trend in gender differences in the prevalence of PDs. A number of studies indicate that borderline PD features are more commonly expressed by women (Akhtar, Byrne, & Doghramhi, 1986; Widiger & Trull, 1993), while many others show no significant difference across gender (Bernstein et al., 1993;

Jackson & Burgess, 2000; Morey, Warner, & Boggs, 2002; Torgersen, Kringlen, & Cramer, 2001; Zimmerman & Coryell, 1989). A few studies even indicate that borderline PD is more common in men (Barzega, Maina, Venturello, & Bogetto, 2001; Carter, Joyce, Mulder, Sullivan, & Luty, 1999; Henry & Cohen, 1983).

Some researchers have posited that these discrepant findings may potentially be explained by selection bias in the samples used (Morey, Alexander, & Boggs, 2005). Selection bias is the distortion of the results of a study due to the atypical (non-generalizable) composition of the sample, and it has been shown to influence the results of borderline PD prevalence studies (Hartung & Widiger, 1998; Skodol & Bender, 2003). Results from multiple meta-analyses using clinical samples have found evidence to suggest that nearly 75% of those diagnosed with borderline PD are women (Akhtar et al., 1986; Widiger & Trull, 1993). However, the higher prevalence of women in these studies may be due at least in part to the fact that the clinical population is different from the population as a whole. Women may be more likely to seek treatment for example (Möller-Leimkühler, 2002), and it may follow in turn that a woman with borderline PD may be more likely to seek treatment than a man with borderline PD. This tendency could in theory lead to an overrepresentation of women with borderline PD and an underrepresentation of men with borderline PD in clinical populations. Focusing on only clinical samples is a valid approach to estimate the prevalence of borderline PD in a clinical population, but these findings may not generalize to the population as a whole. In contrast, no significant difference in the prevalence of borderline PD was found in four large studies using community samples with an average of over 3,000 participants per study, a wide representation of ages 18 and over, and representation from various regions including New York (Bernstein et al., 1993), Iowa (Zimmerman & Coryell, 1989), Australia (Jackson & Burgess, 2000), and Norway

(Torgersen, Kringlen, & Cramer, 2001). This finding in non-clinical samples may suggest that borderline PD is equally prevalent in men and women who generally are not seeking treatment.

These discrepant findings may potentially be better understood through the use of epidemiological samples such as the one used by Trull, Jahng, Tomko, Wood, and Sher (2010) which found that borderline PD was slightly more common in women. Such sample types include members of the community, individuals seeking treatment, and are carefully selected to represent the larger population on important demographics like gender and ethnicity. As a result, they may be more aptly suited to generalize to the population as a whole than a clinical or community sample alone. However, this study along with nearly all of those listed thus far and those examining the other PDs, utilized only one perspective, typically self-report, and defined prevalence using a categorical diagnostic threshold. As discussed in the sections above, there are major limitations to relying solely on self-report and defining PDs categorically ignores important subthreshold information. In sum, problems in sample selection and assessment techniques have made the true prevalence of borderline PD, and especially the prevalence of borderline PD across gender, unclear.

These problems are not without consequence, as the inability to clearly establish the prevalence of a PD and its base rates within various populations can limit a clinician's ability to make accurate predictions or sound clinical decisions (Meehl & Rosen, 1955). Therefore, it is imperative that future research on PDs involves concentrated efforts to involve carefully selected representative samples, dimensional representation of PDs, and well-validated assessment techniques across multiple perspectives.

Differences in Presentation. Along with the gender differences in prevalence, gender differences in presentation of each PD is a complex subject of research. One primary example of

this complexity can be observed in observed differences between antisocial PD and histrionic PD. Hamburger, Lilienfeld, and Hogben (1996) found that despite having the same underlying personality pathology predisposition (psychopathy, a construct related to both antisocial PD and histrionic PD) males and females exhibited very different patterns of presentation. Males tended to exhibit a pattern considered to be more stereotypically “masculine” and more consistent with a diagnosis of antisocial PD while females tended to exhibit a pattern considered to be more stereotypically “feminine” and more consistent with a diagnosis of histrionic PD. This trend also extends to clinicians, who have been found to not apply certain PD diagnoses (including histrionic and antisocial) equally to men and women (Garb, 1997). These findings potentially suggest that males and females may be inherently more likely to receive diagnoses of certain PDs, despite having similar or identical underlying personality pathology.

One of the prevailing theories for why presentations of PD pathology tend to differ across gender is that different presentations are driven by the numerous effects of stereotypes on people’s attitudes, actions, and how those actions are interpreted. Stereotypes, as a part of gender schema theory (Bem, 1981), have been shown to directly influence attitudes (i.e. tendencies to view an entity with favor or disfavor) toward men and women in an already large and constantly growing body of literature (e.g. Eagly & Mladinic, 1989). Negative and positive attitudes toward the actions of men and women create conditioning cycles that reward and encourage certain expected behaviors, while simultaneously punishing and discouraging behaviors that go against the norm. In this way, men and women are essentially socialized to learn what they should and should not be, sometimes referred to as a prescriptive gender stereotype. A notable example of this phenomenon can be observed in assertiveness. Meta-analyses have revealed that men tend to be higher in assertiveness (Feingold, 1994). This finding is likely due in some large part to the

way men are socialized to be and expected to be more assertive and to the way women experience substantial backlash and negative evaluations when they act with agency that is not tempered with “sufficient” niceness according to prescriptive gender stereotypes (Rudman & Glick, 2001). Thus, the prescriptive stereotype that men should be assertive and women should not has established rewards and punishments that guide the difference in both the overall presence of assertiveness and how that assertiveness is received.

The effects of prescriptive stereotypes have been shown to influence numerous constructs beyond assertiveness (Prentice & Carranza, 2002) and almost certainly have major effects on constructs central to PDs such as aggression and impulsivity. Indeed, initial research has revealed that gender stereotypes have a substantial effect on borderline PD in terms of the prevalence of the diagnosis, associated stigma, and stigmatizing practices of both the population and professionals (Bjorklund, 2006; Nehls, 1998). Similarly, researchers have shown that individuals tend to have gender-driven expectations surrounding symptoms of paranoid PD, antisocial PD, dependent PD, and histrionic PD (Rienzi & Scrams, 1991). These findings suggest that when the same PD criteria are endorsed in men and women, they are likely to be experienced differently across gender depending on the prescriptive gender stereotypes associated with them. These different experiences may have major effects on how the individual interacts with and is perceived by others as well how the individual seeks and receives treatment.

Along with the differences in experience when individuals have endorsed the same criteria, gender differences in presentation of PDs can also occur with respect to which criteria are endorsed. Certain diagnostic criteria may be more readily endorsed or applied based on how they relate to cultural expectations and stereotypes. Furthermore, gender differences in presentation may occur in the likelihood for co-occurrence of other disorders. Different

comorbid disorders can have major influence on the overall presentation of the disorder and have numerous implications for treatment. An example of this gendered phenomenon can be seen in borderline PD, where men with borderline PD reported significantly more lifetime substance abuse disorders, antisocial personality, and more commonly met criteria for non-overlapping intermittent explosive disorder than did women (Zlotnick, Rothschild, & Zimmerman, 2002). In the same study, women with borderline PD reported significantly more lifetime eating disorders than did men with borderline PD. This is evidence to suggest that males and females with the same PD may have different likelihoods of presenting with certain other comorbid disorders. Interestingly, this study found no gender differences in degree of overall impairment. These results suggest that male and female patients with a PD, although equally distressed, may present with different patterns of co-morbid disorders brought on by the effects of gender stereotypes, attitudes, and expectations.

Gender Bias. The preceding two sections have identified major differences in both the prevalence of PDs across gender as well as the differing presentation of PDs in men and women. There are many ways to interpret differential prevalence rates as a function of gender (Corbitt & Widiger, 1995). Some critics have argued that they are an artifact of gender bias (Caplan, 1995; Kaplan, 1983; Walker, 1994). These arguments can be similarly extended to offer potential explanations for differences in PD presentation. In the ongoing debate about the effects of gender bias on PDs, Widiger (1998) offered six potential ways in which gender bias may exist. Many of these have already been discussed (e.g. sampling of the population, diagnostic thresholds) but others, such as bias within the diagnostic criteria themselves based on the presence of gender related symptomatology, merit further examination.

Initial research on this topic has revealed items on several of the most widely used PD instruments are biased in the sense that they are endorsed more easily by men than by women (Lindsay & Widiger, 1995). Similarly Morey, Warner, and Boggs (2002) found that gender differences reached significance for 9 of the 79 criteria. In this study, the participants also provided pathology ratings of the criteria. When a criterion was viewed as more problematic for one gender, it also tended to be reported as more prevalent in that gender. Gender bias was also found in three commonly used self-reported PD inventories by examining when the gender differences found either did not correlate or correlated negatively with dysfunction (Lindsay, Sankis, & Widiger, 2000). All of these studies provide further evidence for differences in the conceptualization of, assessment of, and presentation of PD criteria, particularly when it comes to how they relate to dysfunction and negative attitudes.

More recent research into this topic of gender bias has applied IRT techniques to evaluate the potential for differential item functioning (DIF). DIF in the context of this study by Jane, Oltmanns, South, and Turkheimer (2007) is a form of measurement bias in which men and women with equivalent levels of PD pathology endorsed the PD criteria-based items at different rates. The authors found evidence of DIF in six of the PD criteria. Four of these were more likely to be endorsed by men and had clear relations to stereotypically “masculine” behaviors (e.g. recklessness) whereas two were more likely to be endorsed by women and had less clear relations to stereotypically “feminine” behaviors (e.g. chooses solitary activities). The presence of DIF in this study lays a promising groundwork for the study of gender bias in PDs, but is a mono-method (this time structured clinical interview) study with problems related to differences in their samples that led the authors to conclude that the study “should be replicated in other,

more diverse samples” such as “an older sample, for whom PDs have become more stable” (p.174).

Personality Disorders across Gender and Perspective

A recent study by Busch, Balsis, Morey, and Oltmanns (2016) examined gender differences of borderline PD in precisely the kind of sample of older adults called for by Jane et al. (2007). To ensure the sample was largely free from selection bias, the data for this study came from a carefully selected epidemiological sample of the St. Louis area that includes an accurate and proportional representation of men and women. This study also addressed issues associated with mono-method assessment by including both self- and informant reports. Importantly, this study also focused on the entire borderline PD dimension rather than providing only categorically defined diagnostic information, and therefore included subthreshold item-level information. The combination of these sampling and assessment techniques uniquely position this study to provide information that can answer questions raised throughout this review of literature.

The study revealed a significant interaction between gender and perspective, such that gender differences were found for self-report only in that men reported higher scores of borderline PD. Meanwhile, informant reports revealed no significant difference between genders. This finding suggests that whether one finds gender differences across the borderline PD continuum will depend on the perspective of the assessment, which further emphasizes the importance of including informant reports in future investigations. The criterion-level analyses also identified particular criteria that were found to have statistically significant interactions across gender and perspective: Efforts to avoid abandonment, identity disturbances, and impulsivity. For each of these items self-reports indicated that men were more likely to endorse

while informant reports indicated no difference. There was also a significant gender difference for the item designed to assess the intense anger criterion, in that both selves and informants were more likely to endorse this item for males. All findings summed together, this study provided the field of PD pathology with substantial, incremental clarity on borderline PD. Namely, information on how borderline PD is understood across self- and informant reports and what gender differences exist at both the global and criterion-level, from a sample that is aptly suited to generalize to the greater population.

As a brief report however, the study does lack certain potentially useful and important information. Chiefly, it is only a study of borderline PD. If these results were found in borderline PD, it stands to reason that applying these analyses to the remaining nine PDs would be similarly beneficial. The present study will do just that to provide more comprehensive information on all of the PDs. Furthermore, this initial study was unable to determine if the gender differences observed were due to measurement bias. The current investigation will include IRT based analyses of DIF to signal for this problem. These analyses could reveal which gender differences are the result of actual group differences and which are the result of issues in the way PDs are measured and understood. Additionally, the DIF analyses of gender could be extended to examine the potential for the existence of DIF across self- and informant reports. This examination across perspective could reveal differences in the way self- and informant reports assess each latent PD dimension. Finally, the original study examined the interaction between perspective and gender at the diagnostic level, criterion-level, and dimensional level. The present investigation will similarly examine PDs at each of these levels, and retain the benefits offered by dimensional assessment such as the inclusion of subthreshold information. In sum, the present study seeks to capitalize on these opportunities by examining all of the PDs across gender and

perspective using techniques in sampling, assessment, and statistics that are well-suited to addressing current limitations in the field of PD pathology.

2. METHODS

Participants and Informants

Recruitment Procedures. Participants were drawn from the St. Louis Personality and Aging Network (SPAN) sample (Oltmanns & Gleason, 2011; Oltmanns et al., 2014). The sample is a longitudinal epidemiological sample formed through phone recruitment from the St. Louis, MO, USA metropolitan area. The target age for the study were individuals between 55-65 years of age. Potential participants were identified via a cross check between listed phone numbers and census records to determine eligible households. Phone calls and letters were used to recruit potential participants and 43% of the targeted individuals agreed to participate. To determine whether there was any response bias, non-responders were asked to complete the NEO-PI-R, a measure of the Five Factor Model of personality. Of the non-responders, 82 returned the personality measure; it was determined that the mean scores of responders and non-responders were “quite similar, if not exactly identical” (Oltmanns & Gleason, 2011, p. 158). Therefore, there was little evidence to suggest that there was sampling bias, at least on the basis of personality. Of the 1,630 adults who agreed to participate, all but 193 then provided an informant, leaving 1,437 participant and informant dyads. Due to a lack of complete information, 77 dyads were not used in this study, leaving a final sample of 1,360 participant and informant dyads.

Informants were nominated by the participants. The participants were asked to identify someone who knows them well that they preferably live with. The participant was required to select someone that they talk to at least once per month and see in person at least once per year. These requirements were set in order to help ensure that the self-informant pairs were well-acquainted and had a longstanding relationship. Participants were compensated \$60 for

completing the baseline assessment, and the informants were compensated \$30 for their participation in the baseline assessment.

Participant Characteristics. An important goal of the SPAN study was to create an epidemiological sample to provide information on a variety of domains that is easily generalizable to the greater population. As an epidemiological sample, the demographic characteristics of the participants were intentionally selected to be consistent with estimates of the St. Louis area population. Thus, 55.6% ($n = 756$) of the participants identified as female. With regard to race, 67.9% ($n = 923$) identified as White, while 30.1% ($n = 408$) identified as Black, which is also consistent with census estimates of the St. Louis area population. As stated above, the participants were 55-65 years of age. This age range was targeted in the SPAN study to begin a longitudinal study of older adults that will examine important changes in aging across the domains of health, personality, and personality pathology among others. Given that PDs are considered to develop after the age of 18 and are longstanding patterns of behavior, the selection of older adults for the sample is beneficial in that if PD pathology exists within each participant it is likely to be well-developed and easily observed by both the participant and their informants across a significant period of time. The highest level of education achieved for 30.7% ($n = 418$) of the participants was graduating high school or equivalent, while the rest received some form of post-secondary education.

Informant Characteristics. The participant-nominated informants were 68.5% ($n = 756$) female and 67.9% ($n = 923$) identified as White, while 30.1% ($n = 408$) identified as Black. Each informant was asked to identify their relationship to the participant. 49% ($n = 666$) of the informants were romantic partners of the participant, 27% ($n = 367$) were family members of the participant, and 22% ($n = 299$) were friends of the participant. Informants were slightly more

educated than participants in that 15.3% ($n = 208$) of the informants' highest educational level was high school graduate or equivalent, while the rest received some form of post-secondary education. On average, the participants reported knowing their informant for more than 30 years. Just over half of the participants (52%, $n = 707$) reported that their informant knew them "better than anyone else", while the remaining half reported that their informant knew them "very well" (42%, $n = 571$) or "fairly well" (6%, $n = 82$).

Procedure

The baseline assessment for the participants involved the completion of a three-hour battery of assessment protocols. The participants were given the option of completing the protocols in person, online, or in some combination of the two. If the participant lived with their selected informant, the materials were sent home with the participant for the informant to complete. When this was not the case, the materials were either mailed to the informants or the informants completed the procedures online.

Measures

The participants and informants completed additional measures beyond what is listed in this section. This includes the Computerized Diagnostic Interview Schedule for DSM-IV (C-DIS-4; Robins & Helzer, 1994) and the RAND-36 Health Status Inventory (HSI; Hays, Prince-Embury, & Chen, 1998) among others. Due to their lack of relevance to the current study, they are not described in detail below. See Oltmanns et al. (2014) for a complete list and explanation of all measures involved in the SPAN study.

Multisource Assessment of Personality Pathology (MAPP). The participants and informants were administered the MAPP (Oltmanns & Turkheimer, 2006). The MAPP is a self-report and informant-report measure designed specifically to assess DSM-IV PDs from the

perspectives of multiple individuals. Items of the MAPP were written by translating the DSM-IV-TR PD diagnostic criteria into lay language. Thus, each of the 81 items represents a PD symptom. The only exception to this is that one symptom of narcissistic PD (“is often envious of others or believes that others are envious of him or her”) was split into two MAPP items (“I think other people are jealous of me” and “I am jealous of other people”). Early research on the MAPP revealed that the measure has good test-retest reliability ($Mdn = .81$; Okada & Oltmanns, 2009) and has predictive validity in divorce (Disney, Weinstein, & Oltmanns, 2012) and early separation from the military (Fiedler, Oltmanns, & Turkheimer, 2004).

The items of the MAPP provide a description of each PD criterion and ask the participant or informant to rate how true each statement is of the participant with a score on a five-point Likert scale ranging from zero to four. A score of zero would indicate that the participant is “never like this” and a score of four would indicate that the participant is “always like this”. The items on the self-report version are identical to the items on the informant-report version with the exception of the pronouns (i.e., “I” on the self-report version was changed to “he/she”). The fact that the measures are nearly identical allows us to easily compare the results between self-report and informant-report measures. For the diagnostic and item-level categorical analyses described below, items were considered present if they received a score of 2 (“I am sometimes like this”) or more.

Revised NEO Personality Inventory (NEO-PI-R). The NEO-PI-R (Costa & McCrae, 1992) is a widely-used self-report inventory of “normal” personality from the perspective of the FFM of personality (neuroticism, extraversion, openness, agreeableness, and conscientiousness). The inventory consists of 240 items to which participants can respond on a five-point Likert scale ranging from 0 (“Strongly disagree”) to 2 (“Neutral”) to 4 (“Strongly agree”). Like with the

MAPP, the NEO-PI-R has a self-report and informant report version, written in first and third person, respectively. The body of literature on the NEO-PI-R suggests that the measure has strong reliability and validity (e.g. McCrae et al., 2011). In the initial SPAN study, the NEO-PI-R was used to examine the potential for response bias differences among responders and non-responders during the recruitment procedures (Oltmanns & Gleason, 2011). The authors concluded there were no significant differences between responders and non-responders on the basis of personality.

Analyses

Personality Disorders: Gender X Perspective. To examine whether differences exist when measuring PD criteria and PD severity across gender and perspective, a series of two by two ANOVAs were conducted. In these analyses, independent variables were Gender (male or female) and Perspective (self-report or informant report). The dependent variables were based on MAPP scores. The series of ANOVAs included analyses using the presence of a diagnosis, the total number of endorsed symptoms, and total MAPP scores. Borderline PD was excluded from some of the following analyses given that they were already conducted by Busch, Balsis, Morey, & Oltmanns (2016). In the following analyses, significant interactions indicate that observed differences in PD severity depend on both gender and perspective.

Each of the 10 PDs were examined via two by two ANOVAs for Gender X Perspective interactions at three levels of granularity. The first was at the level of the diagnostic threshold by treating the syndrome as either present or absent based on the whether or not they met or exceeded the diagnostic requirements specified in the DSM-5 (American Psychiatric Association, 2013). At this level, one can examine whether receiving a diagnosis of a PD depended on the interaction between gender and perspective. The second was at the symptom

count level, in which the dependent variables of the two by two ANOVAs were the number of MAPP PD criteria items that are categorically endorsed (at a score of two or more). Analyses at this level revealed whether or not the likelihood of endorsing a symptom depended on the interaction between gender and perspective. The next level of analyses were two by two ANOVAs in which the dependent variables were the total MAPP score across all of the items of the PD in question. At this level, the analyses revealed whether or not one's overall level of PD pathology depended on the interaction between gender and perspective. This more granular view allows for PD pathology to be examined with substantially more precision than the categorical analyses.

Along with examinations of all specific PDs described above, it is also common in research and practice to examine overall personality psychopathology by considering all PD symptoms together. Thus, the two by two ANOVA was also conducted on overall PD symptomology at three levels. The first level was at the diagnostic level, in which a two by two ANOVA was conducted with the total number of PDs the participant met or exceeded the diagnostic threshold for as the dependent variable. At this level, the analysis revealed whether or not the person is diagnosed with a PD depended on the gender by perspective interaction. The second level analysis was a two by two ANOVA in which the dependent variable was the total number of symptoms that are categorically endorsed (at a score of two or more) across all PDs. The analysis at this level revealed whether or not the total number of symptoms a person endorsed depended on the gender by perspective interaction. PDs in the present study were also assessed as dimensional constructs, as measured by the multi-response option items written to represent the diagnostic criteria. At this level, a two by two ANOVA was conducted with total MAPP scores across all PDs as the dependent variable, and gender and perspective again as the

independent variables. This analysis offered a more precise examination of PD pathology and helped determine whether a person's overall PD pathology depended on the gender by perspective interaction.

Differential Item Functioning (DIF). The differences in severity for each PD across gender revealed in the above analyses may exist due to a form of measurement bias known as differential item functioning (DIF). DIF is a phenomenon in which individuals with the same latent trait level (θ), but different group membership, do not have the same probability of endorsing a test item. For example, a man and a woman could be more or less likely to endorse the same antisocial PD item, despite actually having similar levels of antisocial PD severity. In this example, the antisocial PD item is being measured differently across gender and is therefore indicative of measurement bias. The application of Item Response Theory (IRT), a family of models in which the probability of an item response is modeled as a function of the latent trait (θ) and one or more item parameters (Lord, 1980), can assess for the presence of DIF in PD items across gender. All ten of the PDs were subjected to the below IRT analyses to determine if the differences across gender were a result of DIF.

A key assumption of IRT is that the underlying latent construct is unidimensional. Researchers have recommended that multiple criteria be used in order to evaluate the number of factors and whether or not the assumption of unidimensionality was met (Gessaroli and De Champlain 1996; Fabrigar et al. 1999; Davison and Sireci, 2000). Thus, a series of exploratory factor analyses (EFAs) and confirmatory factor analyses (CFAs) were conducted on the MAPP items of each identified PD. The fit of the EFAs were evaluated using the ratio of first to second eigenvalues-greater than three rule (Lord, 1980; Lumsden, 1957, 1961), a technique that has been cited as commonly used in determining unidimensionality (Hattie 1984; Fabrigar et al.

1999; Russell 2002; Slocum-Gori & Zumbo, 2011). The fit of the CFAs were evaluated using the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean squared error of approximation (RMSEA). CFI/TLI values > .95, and RMSEA values < .06, suggest sufficient fit (Hu & Bentler, 1999). If a PD was found to have insufficient fit on either the EFAs or the CFAs and therefore not meet the requirements for unidimensionality, the IRT analyses were not conducted for that PD.

Once each PD latent continuum was defined, the items were analyzed using the IRT-LR-DIF software program (IRTLRDIF; Thissen, 2001). IRT-LR-DIF is a statistical software application used to establish parameters for the items that define the latent continuum of interest and then test the extent to which individual candidate items index that latent continuum. Parameters were established using the 2 parameter logistic model (2PL; Birnbaum, 1968). The formula for the 2PL is below (with similar notation used in Baker, 2001):

$$\text{Formula 1.1: } P(\theta) = \frac{1}{1 + e^{-a(\theta - b)}}$$

In Formula 1.1, the a parameter (discrimination) represents the strength of the association between a variable and the latent continuum (θ) and is equivalent to the slope of the item characteristic curve (ICC) at its inflection point. The a parameter in IRT denotes the degree to which an item provides distinction toward the latent construct, or more simply put in this context, indicates how strongly the item relates to its corresponding PD. A high a parameter on a PD item would indicate that the item is strongly related to the PD dimension, whereas a low a parameter would indicate the opposite. The b parameter (severity) indicates the θ value that corresponds to the inflection point. This θ value is the point on the latent continuum at which the probability of endorsing the item is equal to 50%. All other things equal, endorsement of high b

parameter items signifies greater severity than does the endorsement of lower b parameter items. Taken together, both parameters form a monotonically increasing function known as an ICC, which reveals the probability that an item is endorsed at any given level of the latent continuum (Hambleton, Swinathan, & Rogers, 1991).

Once the ICCs were established, the a and b parameters were examined for DIF. To test for DIF, we carried out IRT-based likelihood-ratio DIF testing (Thissen, Steinberg, & Gerrard, 1986) separately for each PD. This type of DIF testing involves statistically comparing IRT models with chi-square difference tests. The models differ with respect to their constraints. For each item, a model with item parameters constrained equal for males and females is compared with a model that permits item parameters to vary between groups (models are described more fully below). A Bonferroni correction was applied separately across all PD criteria for both sets of parameters (a and b) to reduce the chances of making a Type I error.

Each item was then analyzed using a 2PL model fitted with a and b parameters constrained equal for both groups, and with a and b parameters permitted to vary across gender. If the constraints significantly decreased the model fit, there was evidence of omnibus DIF for that item. For the items with evidence of omnibus DIF, follow-up tests in which a and then b parameters were constrained were conducted and compared to determine the nature of the DIF (a , b , or both). A significant difference between these models suggested significant DIF with respect to the a parameter. Then a test of b DIF was conducted in which a model with a and b constrained equal between groups was compared with the model with a constrained equal and b allowed to vary between groups. Significantly high levels of b DIF when comparing across gender indicate that the criteria are endorsed at different rates by males and females when controlling for degree of PD pathology.

Beyond these statistically significant differences, it is also important to consider the importance of clinical significance. To identify clinically significant differences in the b parameters, a clinically significant cut-off of at least $.30 b$ was established, as has been done in previous research on DIF in PD criteria (Balsis et al., 2007). The presence of $.30 b$ DIF means that for a particular criterion, members of one group must have $.30$ standard deviations more PD pathology than the other group before they endorse the item at the same rate as the other group (males and females or selves and informants).

The final step in these analyses was to revisit the ANOVAs examining PDs across gender and perspective equipped with the information gathered from the IRT based analyses of DIF. In particular, the use of the person's standing along the latent continuum (θ) could allow for an even more precise and granular examination than even what was provided by the total MAPP scores. Thus, another series of ANOVAs were conducted using the person's standing on the latent continuum (θ) as the dependent variables. One ANOVA was conducted for each PD to determine whether or not a person's standing along the latent continuum depends on gender and perspective, and one ANOVA was conducted across all PDs to determine whether or not a person's standing along the entire PD pathology latent continuum depends on gender and perspective.

3. RESULTS

The following results are organized by PD, and each PD is presented in the same order as they are listed in the DSM-5. Each PD section contains a customary verbal description of the results and two tables, one for each split-half sample, that list the results of all of the ANOVAs across Gender and Perspective. Standard deviations are reported next to the corresponding means and each partial eta squared is reported next to each F statistic; both are in parentheses. All analyses that were significant according to the 99% confidence interval ($p < .01$) have been marked by an asterisk (*). Analyses that were significant in both split-half samples have been **bolded**. Results that are consistent across samples (either significant or non-significant in both) are the only results that have been considered for interpretation. This requirement, in combination with the more stringent confidence interval, substantially limits the possibility of erroneous findings. Each PD section also contains a selection of figures that compare the means of self-reported and informant reported levels PD severity across gender. These figures were selected to highlight and display the more noteworthy findings relevant to each PD.

Paranoid Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the paranoid PD dimension did not reveal a significant interaction across gender and perspective (Tables 1a and 1b). There was a statistically significant main effect for perspective (see Figure 1), in that informants tended to report higher levels of paranoid PD severity than did selves, sample 1: $F(1, 687) = 48.62, p < .01$ sample 2: $F(1, 694) = 55.69, p < .01$. This effect was also replicated at the level of total number of criteria endorsed, sample 1: $F(1, 687) = 32.03, p < .01$ sample 2: $F(1, 694) = 34.78, p < .01$. Analyses of the individual items revealed that particular criteria had

statistically significant main effects for perspective. Informants, in all instances, reported higher levels of suspicion of harm, doubts of loyalty, reluctance to confide, tendency to bear grudges, and angry reactivity than was observed in self-report. This item-level information underscores these features as relevant in examinations of the mechanisms behind the overall trend in the data for informants to report higher levels of paranoid PD.

Table 1a

Self vs. Informant Reported Paranoid Personality Disorder Severity across Gender (sample 1)

Item		Men n = 306	Women n = 381	F for Gender	F for Perspective	F for G X P
1) Suspects harm	Self	.68 (.92)	.51 (.89)	.15	25.10*	7.18*
	Informant	.80 (1.15)	.91 (1.16)	(.00)	(.04)	(.01)
2) Doubts loyalty	Self	.51 (.73)	.55 (.78)	.48	14.07*	.00
	Informant	.67 (.94)	.70 (1.00)	(.00)	(.02)	(.00)
3) Reluctance to confide	Self	1.26 (1.14)	1.14 (1.05)	2.44	9.62*	.03
	Informant	1.44 (1.31)	1.35 (1.20)	(.00)	(.01)	(.00)
4) Threats perceived	Self	1.16 (1.00)	1.06 (.90)	.04	5.02	4.48
	Informant	1.17 (1.11)	1.29 (1.06)	(.00)	(.01)	(.01)
5) Bears grudges	Self	.59 (.81)	.63 (.84)	1.34	49.87*	.31
	Informant	.91 (1.01)	1.01 (1.22)	(.00)	(.07)	(.00)
6) Angrily reactive	Self	.62 (.74)	.69 (.77)	.41	42.16*	.31
	Informant	.96 (1.16)	.97 (1.16)	(.00)	(.06)	(.00)
7) Suspects infidelity	Self	.18 (.58)	.28 (.73)	3.58	6.62	.32
	Informant	.29 (.73)	.35 (.81)	(.01)	(.01)	(.00)
Total	Self	5.00 (3.48)	4.87 (3.57)	.18	48.62*	1.29
	Informant	6.24 (4.84)	6.59 (5.19)	(.00)	(.07)	(.00)
Criteria Present	Self	.43 (.95)	.35 (.74)	.38	32.03*	5.71*
	Informant	.58 (.98)	.73 (1.14)	(.00)	(.05)	(.01)
Diagnostic Threshold	Self	.02 (.15)	.01 (.07)	.03	3.07	7.12*
	Informant	.02 (.13)	.04 (.19)	(.00)	(.00)	(.01)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 1b

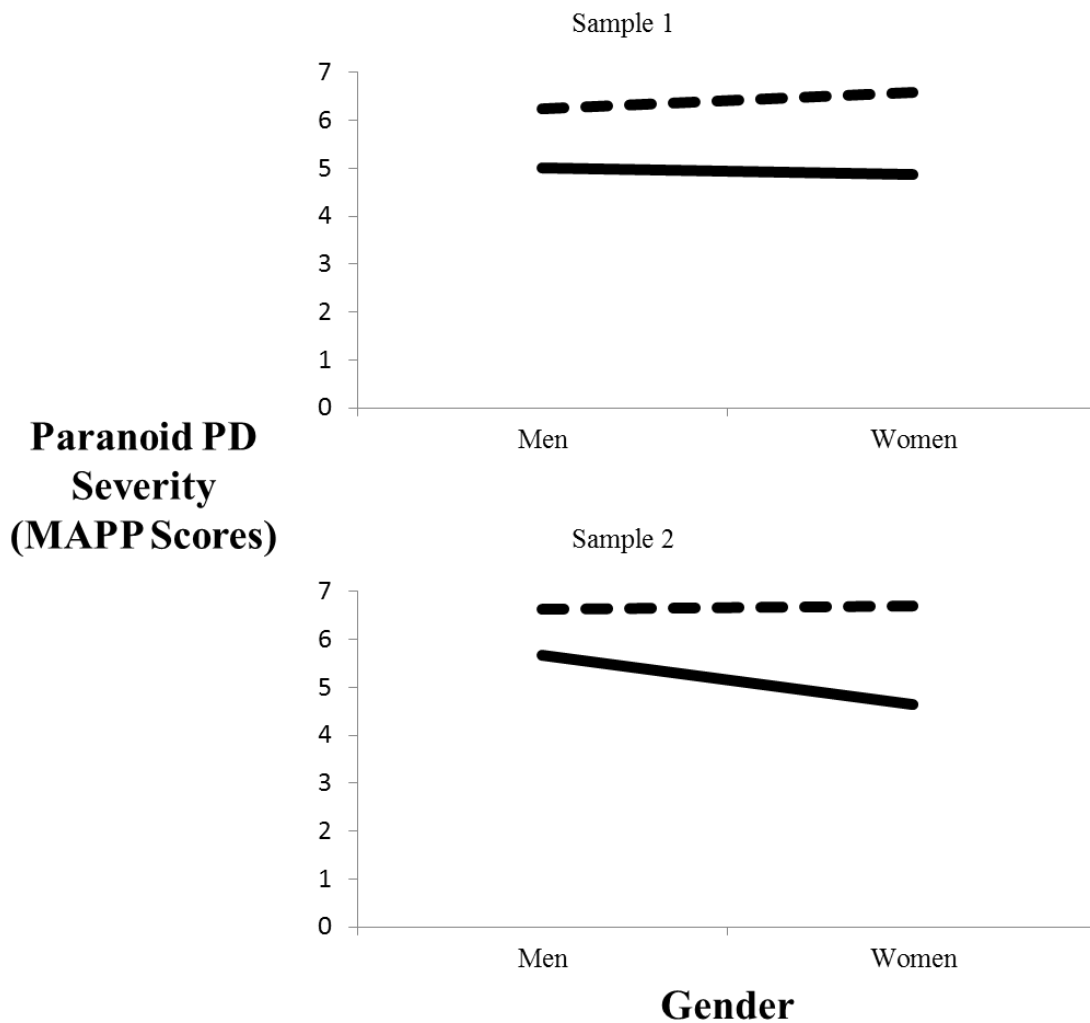
Self vs. Informant Reported Paranoid Personality Disorder Severity across Gender (sample 2)

Item		Men n = 302	Women n = 392	F for Gender	F for Perspective	F for G X P
1) Suspects harm	Self	.68 (.93)	.47 (.85)	2.37	31.56*	6.25
	Informant	.83 (1.10)	.86 (1.10)	(.00)	(.04)	(.01)
2) Doubts loyalty	Self	.67 (.92)	.54 (.90)	3.61	13.43*	.08
	Informant	.82 (1.12)	.72 (.99)	(.01)	(.02)	(.00)
3) Reluctance to confide	Self	1.35 (1.17)	1.10 (1.05)	3.29	10.61*	4.90
	Informant	1.41 (1.18)	1.42 (1.23)	(.01)	(.02)	(.01)
4) Threats perceived	Self	1.29 (1.05)	1.05 (.95)	.05	5.21	19.42*
	Informant	1.18 (1.09)	1.39 (1.10)	(.00)	(.01)	(.03)
5) Bears grudges	Self	.80 (.99)	.61 (.87)	3.93	41.88*	1.43
	Informant	1.06 (1.20)	.99 (1.17)	(.01)	(.06)	(.00)
6) Angrily reactive	Self	.70 (.81)	.62 (.72)	5.61	47.03*	1.15
	Informant	1.08 (1.22)	.90 (1.08)	(.01)	(.06)	(.00)
7) Suspects infidelity	Self	.17 (.59)	.25 (.70)	7.82*	14.06*	1.51
	Informant	.25 (.67)	.42 (.88)	(.01)	(.02)	(.00)
Total	Self	5.66 (4.13)	4.65 (3.71)	2.79	55.69*	7.01*
	Informant	6.63 (5.28)	6.69 (5.02)	(.00)	(.08)	(.01)
Criteria Present	Self	.51 (.98)	.34 (.71)	1.98	34.78*	2.35
	Informant	.74 (1.16)	.73 (1.24)	(.00)	(.05)	(.00)
Diagnostic Threshold	Self	.03 (.16)	.01 (.07)	1.56	10.47*	.78
	Informant	.05 (.21)	.04 (.21)	(.00)	(.02)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 1

Self vs. Informant Reported Paranoid Personality Disorder Severity across Gender



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. Difference in gender: sample 1: $[F(1,687) = .18, p > .01]$ sample 2: $[F(1,694) = 2.79, p > .01]$. **Difference in perspective: sample 1: $[F(1,687) = 48.62, p < .01]$ sample 2: $[F(1,694) = 55.69, p < .01]$.** Interaction Gender X Perspective = sample 1: $[F(1,687) = 1.29, p > .01]$ sample 2: $[F(1,694) = 7.01, p > .01]$.

Schizoid Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the schizoid PD dimension did not reveal a significant interaction across gender and perspective (Tables 2a and 2b). There were however two notable statistically significant main effects for gender on two of the schizoid PD criteria and one main effect for perspective. Item level analyses revealed a gender difference for a lack of interest in sex (Figure 2), in that women and their informants produced higher scores than did men, sample 1: $F(1,677) = 48.64, p < .01$ sample 2: $F(1,676) = 71.93, p < .01$. A gender difference was also found for flattened affect (Figure 3), in that men and their informants produced higher scores than did women, sample 1: $F(1,677) = 57.84, p < .01$ sample 2: $F(1,676) = 13.50, p < .01$. Along with the gender differences, a significant main effect was found for perspective for the schizoid PD criterion chooses solidarity. Targets self-reported a higher tendency to choose solidarity than did their informants, sample 1: $F(1,677) = 22.48, p < .01$ sample 2: $F(1,676) = 31.96, p < .01$. These findings highlight that, even though there is no significant difference in the overall presentation of the disorder, particular schizoid PD criteria may have significant differences in gender or perspective to take into consideration in assessment and treatment.

Table 2a

Self vs. Informant Reported Schizoid Personality Disorder Severity across Gender (sample 1)

Item		Men n = 290	Women n = 387	F for Gender	F for Perspective	F for G X P
1) No relationships	Self	.60 (1.03)	.55 (1.09)	3.17	.12	1.09
	Informant	.68 (1.07)	.51 (1.04)	(.01)	(.00)	(.00)
2) Chooses solidarity	Self	2.07 (.87)	1.92 (.86)	9.57*	22.48*	.23
	Informant	1.89 (.93)	1.70 (.91)	(.01)	(.03)	(.00)
3) No interest in sex	Self	.87 (1.08)	1.43 (1.21)	48.64*	3.21	.83
	Informant	1.03 (1.22)	1.49 (1.35)	(.07)	(.01)	(.00)
4) Feels little pleasure	Self	.45 (.81)	.31 (.63)	7.86*	4.63	.08
	Informant	.52 (.88)	.41 (.80)	(.01)	(.01)	(.00)
5) Lacks confidants	Self	.94 (.98)	.88 (1.07)	5.61	1.23	2.47
	Informant	.97 (1.09)	.74 (1.07)	(.01)	(.00)	(.00)
6) Indifference to others	Self	1.48 (1.18)	1.30 (1.08)	13.82*	.02	1.13
	Informant	1.55 (1.24)	1.25 (1.13)	(.02)	(.00)	(.00)
7) Flattened affect	Self	1.37 (1.02)	.97 (1.01)	57.84*	.39	2.20
	Informant	1.48 (1.19)	.92 (1.07)	(.08)	(.00)	(.00)
Total	Self	8.20 (4.10)	7.68 (3.91)	10.05*	3.36	2.18
	Informant	8.12 (4.63)	7.01 (4.30)	(.02)	(.01)	(.00)
Criteria Present	Self	1.02 (1.08)	.88 (1.08)	7.32*	1.94	.83
	Informant	1.15 (1.40)	.90 (1.21)	(.01)	(.00)	(.00)
Diagnostic Threshold	Self	.03 (.18)	.03 (.18)	2.59	6.03	3.00
	Informant	.08 (.27)	.04 (.20)	(.00)	(.01)	(.04)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 2b

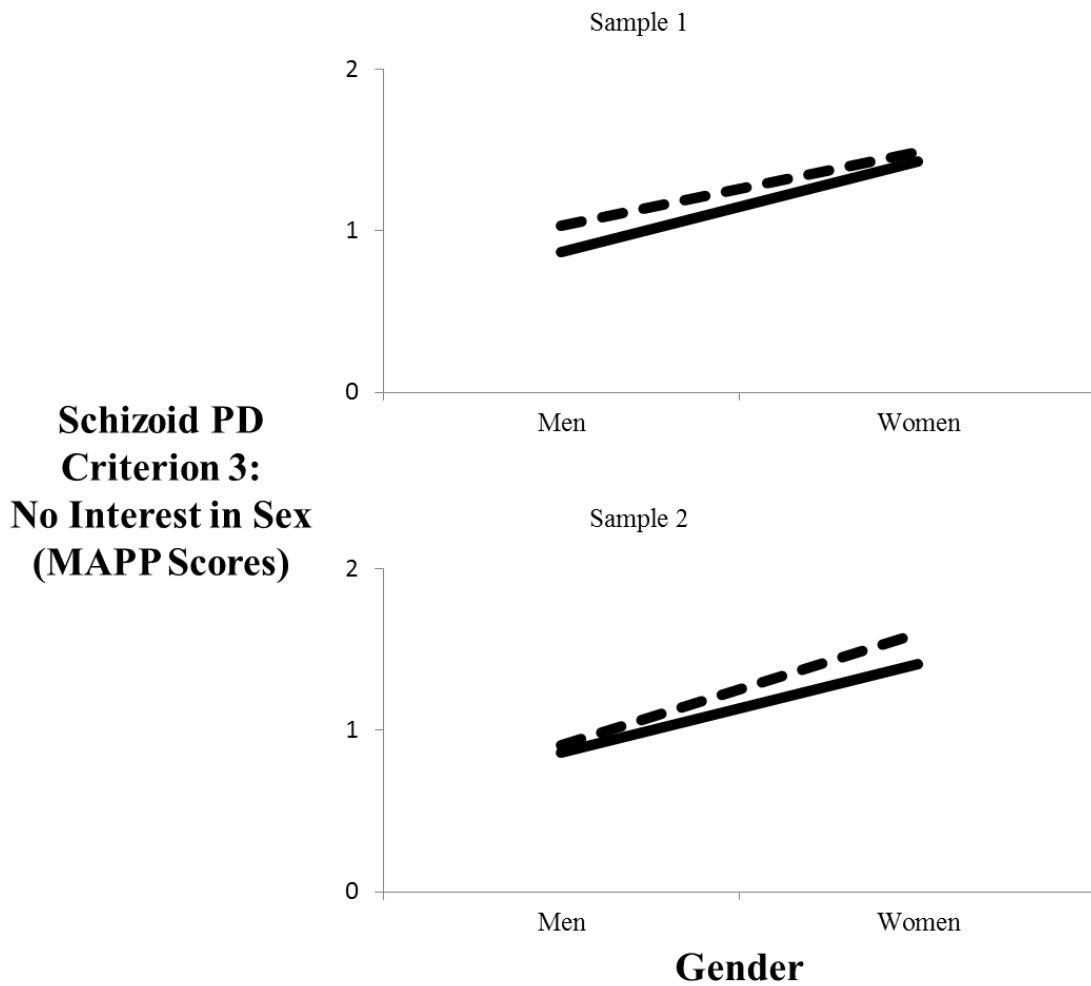
Self vs. Informant Reported Schizoid Personality Disorder Severity across Gender (sample 2)

Item		Men n = 307	Women n = 369	F for Gender	F for Perspective	F for G X P
1) No relationships	Self	.59 (1.06)	.52 (1.05)	5.18	1.70	1.54
	Informant	.58 (1.04)	.39 (.88)	(.01)	(.00)	(.00)
2) Chooses solidarity	Self	2.02 (.82)	1.89 (.86)	4.40	31.96*	.21
	Informant	1.77 (.94)	1.68 (.85)	(.01)	(.05)	(.00)
3) No interest in sex	Self	.86 (1.08)	1.41 (1.19)	71.93*	4.00	1.39
	Informant	.91 (1.18)	1.60 (1.40)	(.10)	(.01)	(.00)
4) Feels little pleasure	Self	.34 (.69)	.27 (.63)	.00	8.07*	4.30
	Informant	.36 (.67)	.44 (.77)	(.00)	(.01)	(.01)
5) Lacks confidants	Self	.87 (1.03)	.81 (1.03)	1.19	.11	.00
	Informant	.85 (1.09)	.79 (1.01)	(.00)	(.00)	(.00)
6) Indifference to others	Self	1.50 (1.10)	1.32 (.99)	6.04	.07	.29
	Informant	1.45 (1.22)	1.33 (1.12)	(.01)	(.00)	(.00)
7) Flattened affect	Self	1.28 (.97)	.99 (.96)	13.50*	.53	1.09
	Informant	1.26 (1.20)	1.09 (1.06)	(.02)	(.00)	(.00)
Total	Self	7.92 (4.01)	7.53 (3.83)	.38	6.64	1.64
	Informant	7.19 (4.10)	7.28 (3.87)	(.00)	(.01)	(.00)
Criteria Present	Self	.88 (1.09)	.79 (.98)	.36	1.46	.93
	Informant	.89 (1.11)	.90 (1.12)	(.00)	(.00)	(.00)
Diagnostic Threshold	Self	.02 (.15)	.02 (.14)	.57	3.36	.11
	Informant	.04 (.20)	.03 (.18)	(.00)	(.01)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 2

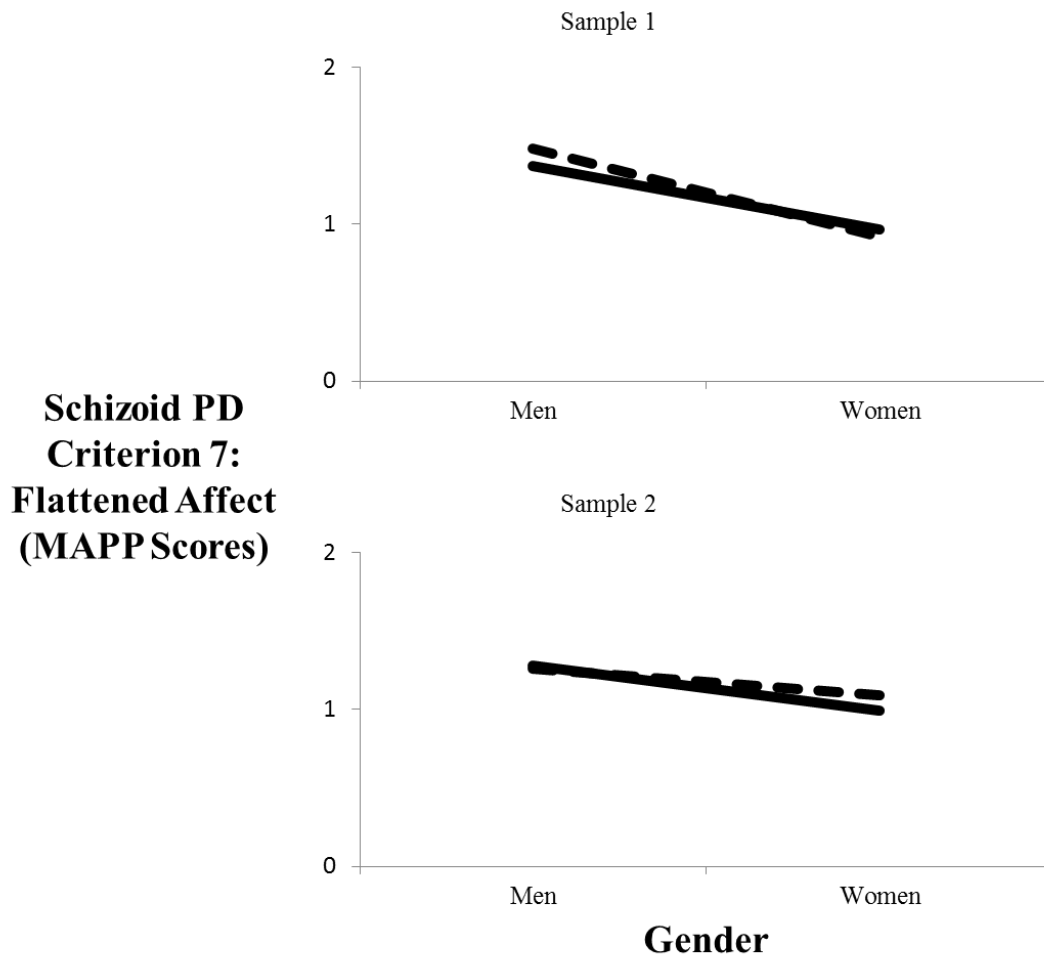
Self vs. Informant Reported Schizoid Personality Disorder Severity across Gender: Criterion 3



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. **Difference in gender: sample 1: [F(1,677) = 48.64, $p < .01$] sample 2: [F(1,676) = 71.93, $p < .01$].** Difference in perspective: sample 1: [F(1,677) = 3.21, $p > .01$] sample 2: [F(1,676) = 4.00, $p > .01$]. Interaction Gender X Perspective = sample 1: [F(1,677) = .83, $p > .01$] sample 2: [F(1,676) = 1.39, $p > .01$].

Figure 3

Self vs. Informant Reported Schizoid Personality Disorder Severity across Gender: Criterion 7



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. **Difference in gender: sample 1: [F(1,677) = 57.84, $p < .01$] sample 2: [F(1,676) = 13.50, $p < .01$].** Difference in perspective: sample 1: [F(1,677) = .39, $p > .01$] sample 2: [F(1,676) = .53, $p > .01$]. Interaction Gender X Perspective = sample 1: [F(1,677) = 2.20, $p > .01$] sample 2: [F(1,676) = 1.09, $p > .01$].

Schizotypal Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the schizotypal PD dimension revealed a significant interaction across gender and perspective, sample 1: $F(1,672) = 9.73, p < .01$ sample 2: $F(1,672) = 14.47, p < .01$ (Tables 3a and 3b). Gender differences were found for self-report only, such that men produced higher scores on the schizotypal PD scale (sample 1: $M = 5.48, SD = 3.96$ sample 2: $M = 5.33, SD = 4.24$) than did women (sample 1: $M = 4.48, SD = 3.72$ sample 2: $M = 4.29, SD = 3.55$). Meanwhile, informant report indicated no gender difference, Men sample 1: $M = 5.61, SD = 4.29$ sample 2: $M = 5.19, SD = 4.19$; Women, sample 1: $M = 5.86, SD = 4.75$ sample 2: $M = 5.71, SD = 4.63$. These discrepancies across both gender and perspective suggest that whether one finds gender differences across the schizotypal PD continuum will depend on the perspective of the assessment (see Figure 4).

Criterion-level analyses revealed a statistically significant interaction across gender and perspective for paranoid ideation, sample 1: $F(1,672) = 7.28, p < .01$ sample 2: $F(1,672) = 8.91, p < .01$. The results for this item parallel the overall interaction: self-report tended to reveal a gender difference whereas informant report revealed relative stability across gender. This finding underscores paranoid ideation as a particularly relevant subject of inquiry for examinations of the mechanisms behind the overall trend in the data. There were also two statistically significant main effects that lacked a significant interaction. A gender difference was found for a lack of close friends, in that men and their informants produced higher scores than did women, sample 1: $F(1,672) = 27.46, p < .01$ sample 2: $F(1,672) = 13.47, p < .01$. A significant main effect was also found for perspective for the schizotypal PD criterion unusual experiences. Informants reported a higher tendency to have unusual experiences than did selves, sample 1: $F(1,672) = 15.54, p < .01$ sample 2: $F(1,672) = 8.79, p < .01$.

Table 3a

Self vs. Informant Reported Schizotypal Personality Disorder Severity across Gender (sample 1)

Item		Men n = 289	Women n = 383	F for Gender	F for Perspective	F for G X P
1) Ideas of reference	Self	.26 (.56)	.25 (.53)	3.93	1.84	7.54*
	Informant	.22 (.50)	.37 (.68)	(.01)	(.00)	(.01)
2) Odd beliefs	Self	.31 (.67)	.33 (.66)	4.79	2.79	6.62
	Informant	.28 (.71)	.47 (.86)	(.01)	(.00)	(.01)
3) Unusual experiences	Self	.93 (.88)	.73 (.88)	1.73	15.54*	6.63
	Informant	1.00 (1.03)	1.05 (.98)	(.00)	(.02)	(.01)
4) Odd thinking	Self	1.41 (.98)	1.21 (.96)	6.54	3.48	.95
	Informant	1.46 (1.05)	1.36 (.97)	(.01)	(.01)	(.00)
5) Paranoid ideation	Self	.58 (.93)	.37 (.74)	2.98	15.56*	7.28*
	Informant	.64 (.97)	.67 (.98)	(.00)	(.02)	(.01)
6) Inappropriate affect	Self	.43 (.72)	.42 (.68)	3.75	.34	4.90
	Informant	.37 (.66)	.53 (.81)	(.01)	(.00)	(.01)
7) Eccentric behavior	Self	.36 (.68)	.36 (.70)	.00	.02	.00
	Informant	.35 (.75)	.35 (.78)	(.00)	(.00)	(.00)
8) Lacks close friends	Self	.72 (1.12)	.42 (.93)	27.46*	9.21*	.92
	Informant	.92 (1.30)	.52 (1.00)	(.04)	(.01)	(.00)
9) Social anxiety	Self	.46 (.74)	.39 (.70)	1.15	.58	11.86*
	Informant	.37 (.64)	.54 (.80)	(.00)	(.00)	(.02)
Total	Self	5.48 (3.96)	4.48 (3.72)	2.14	14.12*	9.73*
	Informant	5.61 (4.29)	5.86 (4.75)	(.00)	(.02)	(.01)
Criteria Present	Self	.46 (.91)	.31 (.68)	3.10	15.12*	1.80
	Informant	.58 (.93)	.54 (1.10)	(.01)	(.02)	(.00)
Diagnostic Threshold	Self	.01 (.08)	.00 (.00)	.10	1.28	3.80
	Informant	.00 (.06)	.01 (.11)	(.00)	(.00)	(.01)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 3b

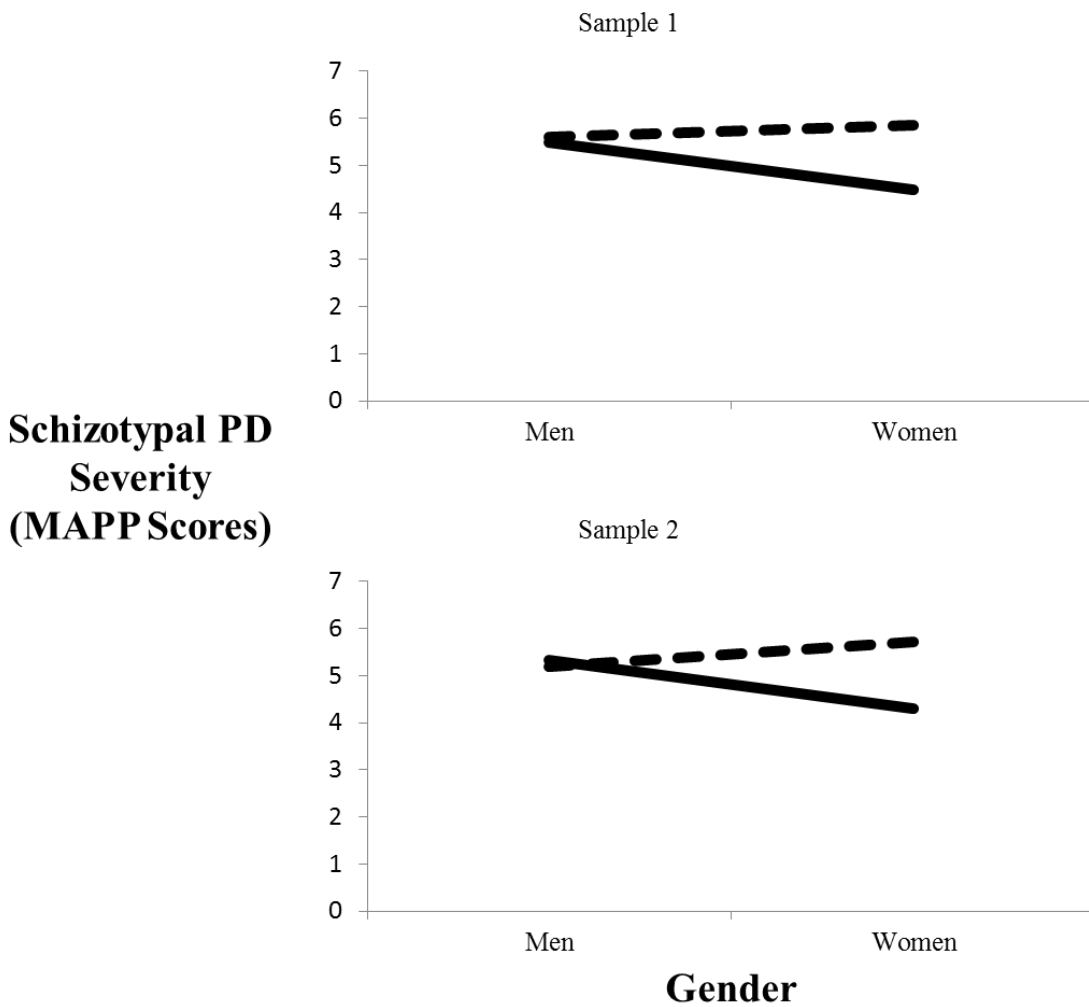
Self vs. Informant Reported Schizotypal Personality Disorder Severity across Gender (sample 2)

Item		Men n = 316	Women n = 356	F for Gender	F for Perspective	F for G X P
1) Ideas of reference	Self	.22 (.52)	.23 (.57)	4.02	7.11*	3.27
	Informant	.24 (.59)	.37 (.69)	(.01)	(.01)	(.01)
2) Odd beliefs	Self	.32 (.74)	.34 (.66)	11.06*	1.75	9.28*
	Informant	.25 (.64)	.51 (.92)	(.02)	(.00)	(.01)
3) Unusual experiences	Self	.93 (.98)	.73 (.89)	3.02	8.79*	3.97
	Informant	.98 (1.08)	.99 (1.00)	(.00)	(.01)	(.01)
4) Odd thinking	Self	1.41 (.99)	1.18 (.94)	5.36	3.58	3.35
	Informant	1.42 (1.10)	1.37 (1.05)	(.01)	(.01)	(.01)
5) Paranoid ideation	Self	.47 (.80)	.34 (.71)	.00	15.79*	8.91*
	Informant	.51 (.88)	.63 (.97)	(.00)	(.02)	(.01)
6) Inappropriate affect	Self	.41 (.71)	.35 (.61)	.55	2.06	6.56
	Informant	.37 (.68)	.49 (.84)	(.01)	(.00)	(.01)
7) Eccentric behavior	Self	.35 (.69)	.29 (.62)	.86	.12	.68
	Informant	.34 (.70)	.33 (.71)	(.00)	(.00)	(.00)
8) Lacks close friends	Self	.78 (1.16)	.47 (.93)	13.47*	.47	2.19
	Informant	.74 (1.13)	.58 (1.09)	(.02)	(.00)	(.00)
9) Social anxiety	Self	.44 (.71)	.35 (.62)	.00	.04	6.49
	Informant	.35 (.69)	.44 (.77)	(.00)	(.00)	(.01)
Total	Self	5.33 (4.24)	4.29 (3.55)	1.13	9.76*	14.47*
	Informant	5.19 (4.19)	5.71 (4.63)	(.00)	(.01)	(.02)
Criteria Present	Self	.47 (1.05)	.30 (.73)	1.43	14.40*	4.58
	Informant	.55 (.91)	.58 (1.04)	(.00)	(.02)	(.01)
Diagnostic Threshold	Self	.01 (.11)	.00 (.05)	.04	.01	3.62
	Informant	.00 (.06)	.01 (.11)	(.00)	(.00)	(.01)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 4

Self vs. Informant Reported Schizotypal Personality Disorder Severity across Gender



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. Difference in gender: sample 1: $[F(1,672) = 2.14, p > .01]$ sample 2: $[F(1,672) = 1.13, p > .01]$. **Difference in perspective: sample 1: $[F(1,672) = 14.12, p < .01]$ sample 2: $[F(1,672) = 9.76, p < .01]$. Interaction Gender X Perspective = sample 1: $[F(1,672) = 9.73, p < .01]$ sample 2: $[F(1,672) = 14.47, p < .01]$.**

Antisocial Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the antisocial PD dimension did not reveal a significant interaction across gender and perspective (Tables 4a and 4b). There was however a statistically significant main effect for gender (Figure 5), in that males and their informants reported more antisocial PD severity than did women, sample 1: $F(1,699) = 20.63, p < .01$ sample 2: $F(1,691) = 29.47, p < .01$. Criterion-level analyses revealed that this overall gender difference appears to be primarily driven by the antisocial PD criteria found to have a significant main effect for gender. Namely, males and their informants reported higher rates of deceitfulness, recklessness, and lack of remorse than did women (see tables 4a and 4b for values). These consistent gender differences are potentially informative for developing our understanding of antisocial PD as it relates to gender. Along with the gender differences, a significant main effect for perspective was found for the antisocial PD criteria irritability/aggression and lack of remorse (see Tables 4a and 4b for values). Informants reported higher irritability/aggression and lack of remorse than did selves, which raises inquiry about the potential for selves to miss, underestimate, or intentionally conceal their aggressive and callous behaviors.

Table 4a

Self vs. Informant Reported Antisocial Personality Disorder Severity across Gender (sample 1)

Item		Men n = 306	Women n = 393	F for Gender	F for Perspective	F for G X P
1) Law-breaking behavior	Self	.05 (.30)	.01 (.13)	7.68*	3.04 (.00)	.69 (.00)
	Informant	.08 (.41)	.03 (.25)			
2) Deceitfulness	Self	.65 (.79)	.49 (.66)	12.02*	.09 (.00)	.01 (.00)
	Informant	.66 (.94)	.50 (.80)			
3) Impulsivity	Self	1.13 (.80)	1.10 (.83)	1.30 (.00)	8.61* (.01)	.47 (.00)
	Informant	1.03 (.98)	.94 (.99)			
4) Irritability/Aggression	Self	.19 (.55)	.13 (.37)	1.35 (.00)	55.34* (.07)	.13 (.00)
	Informant	.42 (.82)	.39 (.78)			
5) Recklessness	Self	.76 (.96)	.41 (.73)	21.70*	.07 (.00)	5.78 (.01)
	Informant	.67 (.94)	.52 (.90)			
6) Irresponsibility	Self	.42 (.67)	.40 (.66)	1.04 (.00)	1.33 (.00)	.49 (.00)
	Informant	.48 (.78)	.41 (.78)			
7) Lack of remorse	Self	.86 (.95)	.60 (.86)	13.64*	10.07* (.01)	1.09 (.00)
	Informant	.97 (1.17)	.82 (1.08)			
Total	Self	4.05 (2.86)	3.15 (2.22)	20.63* (.03)	6.28 (.01)	.43 (.00)
	Informant	4.33 (3.57)	3.62 (3.38)			
Criteria Present	Self	.27 (.68)	.14 (.38)	8.88* (.01)	25.37* (.04)	.33 (.00)
	Informant	.42 (.84)	.33 (.73)			
Diagnostic Threshold	Self	.01 (.11)	.00 (.00)	4.76 (.01)	13.95* (.02)	.22 (.00)
	Informant	.04 (.20)	.02 (.15)			

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 4b

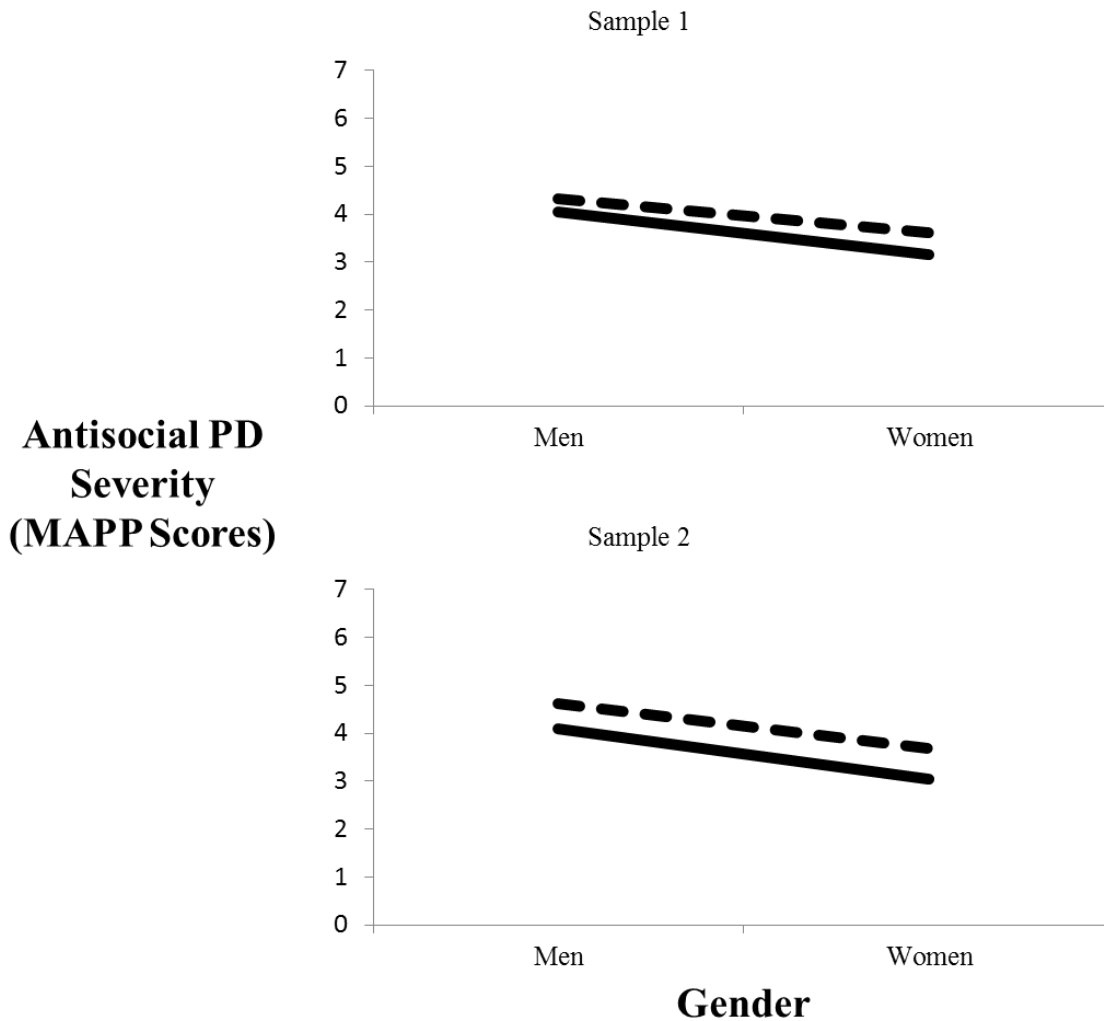
Self vs. Informant Reported Antisocial Personality Disorder Severity across Gender (sample 2)

Item		Men n = 309	Women n = 382	F for Gender	F for Perspective	F for G X P
1) Law-breaking behavior	Self	.06 (.35)	.01 (.17)	6.37	.94	.33
	Informant	.07 (.41)	.03 (.25)	(.01)	(.00)	(.00)
2) Deceitfulness	Self	.76 (.95)	.42 (.60)	31.08*	.16	3.27
	Informant	.70 (.98)	.52 (.84)	(.01)	(.00)	(.01)
3) Impulsivity	Self	1.01 (.85)	1.08 (.81)	.57	.07	6.16
	Informant	1.13 (.99)	.98 (.90)	(.00)	(.00)	(.01)
4) Irritability/Aggression	Self	.21 (.55)	.13 (.39)	5.19	46.48*	.12
	Informant	.43 (.83)	.33 (.74)	(.01)	(.06)	(.00)
5) Recklessness	Self	.68 (.91)	.45 (.76)	11.28*	1.45	1.45
	Informant	.68 (1.02)	.55 (.89)	(.02)	(.00)	(.00)
6) Irresponsibility	Self	.42 (.71)	.36 (.64)	2.43	2.40	.14
	Informant	.49 (.83)	.40 (.80)	(.00)	(.00)	(.00)
7) Lack of remorse	Self	.94 (1.06)	.58 (.82)	26.95*	15.58*	.90
	Informant	1.11 (1.26)	.86 (1.10)	(.04)	(.02)	(.00)
Total	Self	4.09 (2.88)	3.04 (2.15)	29.47*	16.19*	.17
	Informant	4.61 (3.74)	3.68 (3.28)	(.04)	(.02)	(.00)
Criteria Present	Self	.33 (.65)	.14 (.39)	18.82*	28.71*	.17
	Informant	.50 (.93)	.34 (.78)	(.03)	(.04)	(.00)
Diagnostic Threshold	Self	.01 (.11)	.00 (.05)	2.74	16.66*	.19
	Informant	.05 (.22)	.03 (.18)	(.00)	(.02)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 5

Self vs. Informant Reported Antisocial Personality Disorder Severity across Gender



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. **Difference in gender: sample 1: [F(1,699) = 20.63, $p < .01$] sample 2: [F(1,691) = 29.47, $p < .01$].** Difference in perspective: sample 1: [F(1,699) = 6.28, $p > .01$] sample 2: [F(1,691) = 16.19, $p < .01$]. Interaction Gender X Perspective = sample 1: [F(1,699) = 9.73, $p > .43$] sample 2: [F(1,691) = .17, $p > .01$].

Borderline Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the borderline PD dimension revealed a significant interaction across gender and perspective, sample 1: $F(1,694) = 13.10, p < .01$ sample 2: $F(1,693) = 9.20, p < .01$ (Tables 5a and 5b). Gender differences were found for self-report only, such that men produced higher scores on the borderline PD scale (sample 1: $M = 4.45, SD = 3.82$ sample 2: $M = 4.66, SD = 3.63$) than did women (sample 1: $M = 3.22, SD = 3.28$ sample 2: $M = 3.21, SD = 3.19$). Meanwhile, informant report indicated no gender difference, Men sample 1: $M = 5.08, SD = 4.76$ sample 2: $M = 4.92, SD = 4.39$; Women, sample 1: $M = 5.29, SD = 5.28$ sample 2: $M = 4.66, SD = 4.82$. These discrepancies across both gender and perspective suggest that whether one finds gender differences across the borderline PD continuum will depend on the perspective of the assessment (see Figure 6).

Criterion-level analyses revealed a statistically significant interaction across gender and perspective for avoiding abandonment, sample 1: $F(1,694) = 18.22, p < .01$ sample 2: $F(1,693) = 29.13, p < .01$. The results for this item parallel the overall interaction: self-report tended to reveal a gender difference whereas informant report revealed relative stability across gender (see Figure 7). This finding underscores avoiding abandonment as a particularly relevant subject of inquiry for examinations of the mechanisms behind the overall trend in the data. There were also multiple statistically significant main effects for gender and perspective (see Tables 5a and 5b for values). A gender difference was found for impulsivity (see Figure 8), in that men and their

informants produced higher scores than did women, sample 1: $F(1,694) = 7.83, p < .01$ sample 2: $F(1,693) = 19.74, p < .01$. Significant main effects were also found for perspective for six of the borderline PD criteria: unstable relationships, identity disturbance, affective instability, emptiness, intense anger, and transient paranoia. Informants, in nearly all instances, reported higher levels of severity than did selves. The only exception to this was identity disturbance, where selves reported higher levels of identity related distress and instability than did their informants.

Table 5a

Self vs. Informant Reported Borderline Personality Disorder Severity across Gender (sample 1)

Item		Men n = 302	Women n = 392	F for Gender	F for Perspective	F for G X P
1) Avoids abandonment	Self	1.28 (1.38)	.62 (.95)	31.09* (.04)	16.15* (.03)	18.22* (.02)
	Informant	1.26 (1.33)	1.17 (1.29)			
2) Unstable relationships	Self	.17 (.43)	.23 (.57)	3.57 (.01)	36.02* (.05)	.17 (.00)
	Informant	.35 (.75)	.44 (.82)			
3) Identity disturbance	Self	.69 (.71)	.67 (.70)	1.43 (.00)	9.76* (.01)	3.28 (.01)
	Informant	.50 (.70)	.62 (.78)			
4) Impulsivity	Self	.54 (.75)	.30 (.58)	7.83* (.01)	.05 (.00)	10.83* (.02)
	Informant	.43 (.75)	.42 (.86)			
5) Suicidal behavior	Self	.10 (.36)	.09 (.35)	.08 (.00)	.02 (.00)	.01 (.00)
	Informant	.10 (.40)	.09 (.42)			
6) Affect instability	Self	.54 (.82)	.48 (.77)	.05 (.00)	73.27* (.10)	2.61 (.00)
	Informant	.85 (1.09)	.93 (1.12)			
7) Chronic emptiness	Self	.46 (.78)	.38 (.66)	.40 (.00)	13.30* (.02)	1.39 (.00)
	Informant	.55 (.85)	.56 (.87)			
8) Intense anger	Self	.40 (.68)	.25 (.52)	3.10 (.00)	41.26* (.06)	3.98 (.01)
	Informant	.55 (.83)	.55 (.87)			
9) Transient paranoia	Self	.28 (.67)	.20 (.56)	.59 (.00)	46.46* (.06)	1.67 (.00)
	Informant	.49 (.88)	.51 (.92)			
Total	Self	4.45 (3.82)	3.22 (3.28)	3.62 (.00)	46.67* (.06)	13.10* (.02)
	Informant	5.08 (4.76)	5.29 (5.28)			
Criteria Present	Self	.38 (.80)	.15 (.51)	2.56 (.00)	38.96* (.05)	11.14* (.02)
	Informant	.51 (.98)	.58 (1.19)			
Diagnostic Threshold	Self	.01 (.10)	.00 (.05)	.14 (.00)	5.16 (.01)	2.89 (.00)
	Informant	.01 (.12)	.03 (.16)			

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 5b

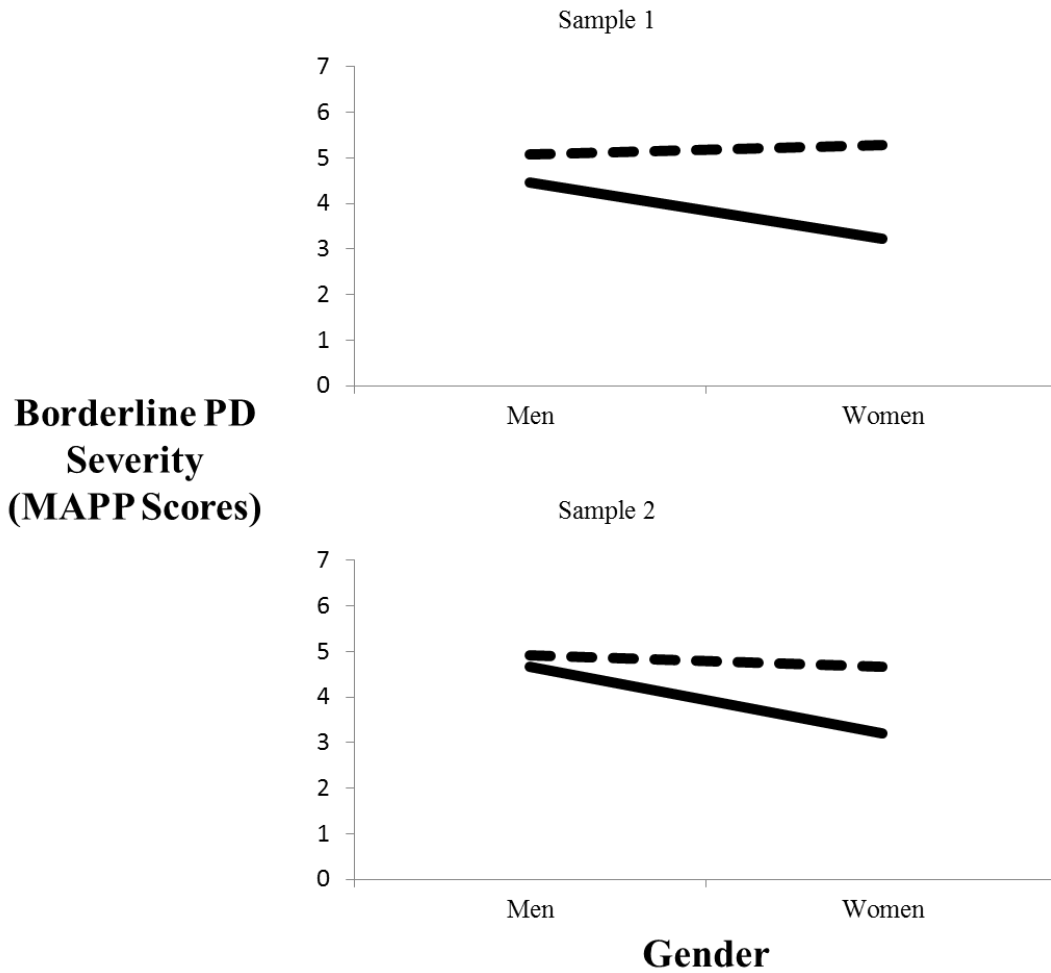
Self vs. Informant Reported Borderline Personality Disorder Severity across Gender (sample 2)

Item		Men n = 315	Women n = 378	F for Gender	F for Perspective	F for G X P
1) Avoids abandonment	Self	1.40 (.140)	.57 (.97)	49.29* (.07)	3.07 (.00)	29.13* (.04)
	Informant	1.17 (1.33)	1.01 (1.24)			
2) Unstable relationships	Self	.23 (.54)	.22 (.56)	.83 (.00)	16.26* (.02)	1.20 (.00)
	Informant	.33 (.70)	.40 (.82)			
3) Identity disturbance	Self	.82 (.78)	.63 (.73)	2.04 (.00)	26.22* (.04)	11.35* (.02)
	Informant	.49 (.72)	.56 (.79)			
4) Impulsivity	Self	.57 (.78)	.33 (.63)	19.74* (.03)	.65 (.00)	1.69 (.00)
	Informant	.49 (.88)	.35 (.74)			
5) Suicidal behavior	Self	.06 (.32)	.10 (.41)	3.23 (.00)	.01 (.00)	.01 (.00)
	Informant	.06 (.26)	.10 (.43)			
6) Affect instability	Self	.50 (.71)	.53 (.80)	1.09 (.00)	54.54* (.07)	.36 (.00)
	Informant	.79 (1.02)	.87 (1.05)			
7) Chronic emptiness	Self	.40 (.69)	.37 (.67)	.01 (.00)	18.07* (.03)	.42 (.00)
	Informant	.53 (.81)	.55 (.86)			
8) Intense anger	Self	.40 (.66)	.27 (.56)	13.85* (.02)	23.70* (.03)	1.03 (.00)
	Informant	.62 (.98)	.42 (.82)			
9) Transient paranoia	Self	.28 (.65)	.19 (.52)	1.91 (.00)	26.15* (.04)	.69 (.00)
	Informant	.43 (.85)	.40 (.80)			
Total	Self	4.66 (3.63)	3.21 (3.19)	12.51* (.02)	19.07* (.03)	9.20* (.01)
	Informant	4.92 (4.39)	4.66 (4.82)			
Criteria Present	Self	.38 (.73)	.18 (.56)	7.07* (.01)	38.96* (.04)	3.79 (.01)
	Informant	.52 (.94)	.48 (.98)			
Diagnostic Threshold	Self	.00 (.06)	.00 (.00)	.00 (.00)	5.10 (.01)	.63 (.00)
	Informant	.01 (.10)	.01 (.11)			

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 6

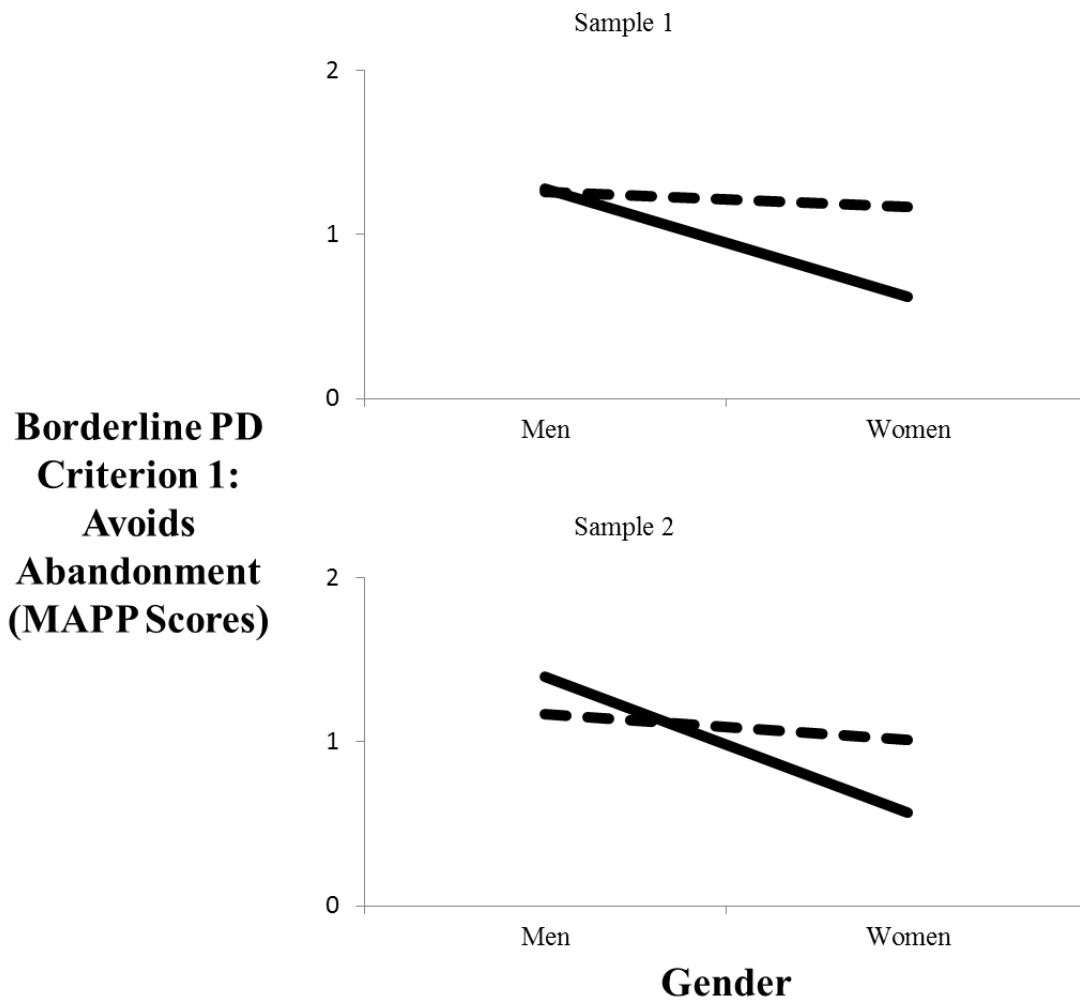
Self vs. Informant Reported Borderline Personality Disorder Severity across Gender



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. Difference in gender: sample 1: $[F(1,694) = 3.62, p > .01]$ sample 2: $[F(1,693) = 12.51, p < .01]$. **Difference in perspective: sample 1: $[F(1,694) = 46.67, p < .01]$ sample 2: $[F(1,693) = 19.07, p < .01]$. Interaction Gender X Perspective = sample 1: $[F(1,694) = 13.10, p < .01]$ sample 2: $[F(1,693) = 9.20, p < .01]$.**

Figure 7

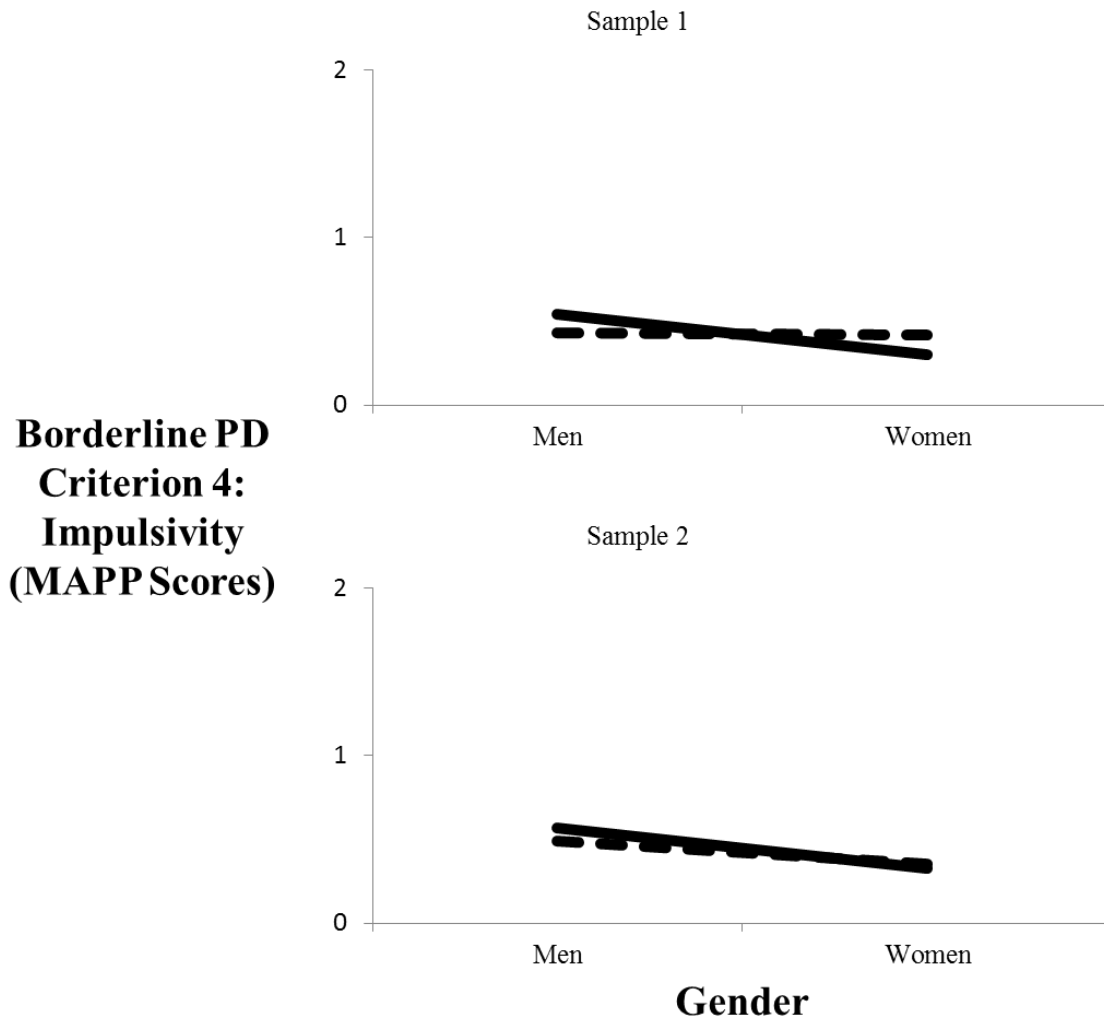
Self vs. Informant Reported Borderline Personality Disorder Severity across Gender: Criterion 1



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. **Difference in gender: sample 1: [F(1,694) = 31.09, $p < .01$] sample 2: [F(1,693) = 49.29, $p < .01$].** Difference in perspective: sample 1: [F(1,694) = 16.15, $p < .01$] sample 2: [F(1,693) = 3.07, $p > .01$]. **Interaction Gender X Perspective = sample 1: [F(1,694) = 18.22, $p < .01$] sample 2: [F(1,693) = 29.13, $p > .01$].**

Figure 8

Self vs. Informant Reported Borderline Personality Disorder Severity across Gender: Criterion 4



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. **Difference in gender: sample 1: [F(1,694) = 7.83, $p < .01$] sample 2: [F(1,693) = 19.74, $p < .01$].** Difference in perspective: sample 1: [F(1,694) = .05, $p > .01$] sample 2: [F(1,693) = .65, $p > .01$]. Interaction Gender X Perspective = sample 1: [F(1,694) = 10.83, $p < .01$] sample 2: [F(1,693) = 1.69, $p > .01$].

Histrionic Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the histrionic PD dimension did not reveal a significant interaction across gender and perspective (Tables 6a and 6b). There were however two notable statistically significant main effects. Item level analyses revealed a gender difference for flirtatiousness (Figure 9), in that men and their informants produced higher scores than did women, sample 1: $F(1,698) = 26.63, p < .01$ sample 2: $F(1,690) = 36.96, p < .01$. A significant main effect was also found for perspective for the histrionic PD criterion self-dramatization (Figure 10). Informants reported a higher occurrence of self-dramatization than targets did about themselves, sample 1: $F(1,698) = 9.21, p < .01$ sample 2: $F(1,690) = 7.79, p < .01$.

Table 6a

Self vs. Informant Reported Histrionic Personality Disorder Severity across Gender (sample 1)

Item		Men n = 308	Women n = 390	F for Gender	F for Perspective	F for G X P
1) Attention-seeking	Self	.54 (.84)	.37 (.67)	3.96	6.30	2.71
	Informant	.57 (.88)	.54 (.93)	(.01)	(.01)	(.00)
2) Flirtatiousness	Self	.72 (.97)	.35 (.65)	26.63*	.00	8.96
	Informant	.61 (.89)	.46 (.82)	(.04)	(.00)	(.01)
3) rapid/shallow emotions	Self	1.27 (.95)	1.39 (1.00)	7.86*	7.04*	.69
	Informant	1.37 (1.14)	1.59 (1.20)	(.01)	(.01)	(.00)
4) Uses body for attention	Self	.51 (.80)	.49 (.75)	1.26	3.37	3.13
	Informant	.37 (.73)	.49 (.85)	(.00)	(.01)	(.00)
5) Impressionistic speech	Self	.83 (.82)	.86 (.86)	.08	1.99	.07
	Informant	.91 (.96)	.92 (1.01)	(.00)	(.00)	(.00)
6) Self-dramatization	Self	.94 (.90)	.83 (.87)	.07	9.21*	6.91*
	Informant	.96 (1.08)	1.11 (1.06)	(.00)	(.01)	(.01)
7) Suggestibility	Self	.69 (.77)	.64 (.73)	.01	1.22	1.86
	Informant	.60 (.85)	.65 (.87)	(.00)	(.00)	(.00)
8) Intimacy assumptions	Self	.85 (.93)	.85 (.93)	.92	1.81	1.97
	Informant	.73 (.94)	.85 (1.02)	(.00)	(.00)	(.00)
Total	Self	6.36 (4.16)	5.78 (3.56)	.06	2.06	6.65
	Informant	6.13 (4.33)	6.59 (4.77)	(.00)	(.00)	(.01)
Criteria Present	Self	.45 (.98)	.36 (.74)	.14	30.33*	5.45
	Informant	.60 (.98)	.73 (1.13)	(.00)	(.04)	(.01)
Diagnostic Threshold	Self	.02 (.13)	.00 (.05)	2.52	.02	1.35
	Informant	.01 (.10)	.01 (.09)	(.00)	(.00)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 6b

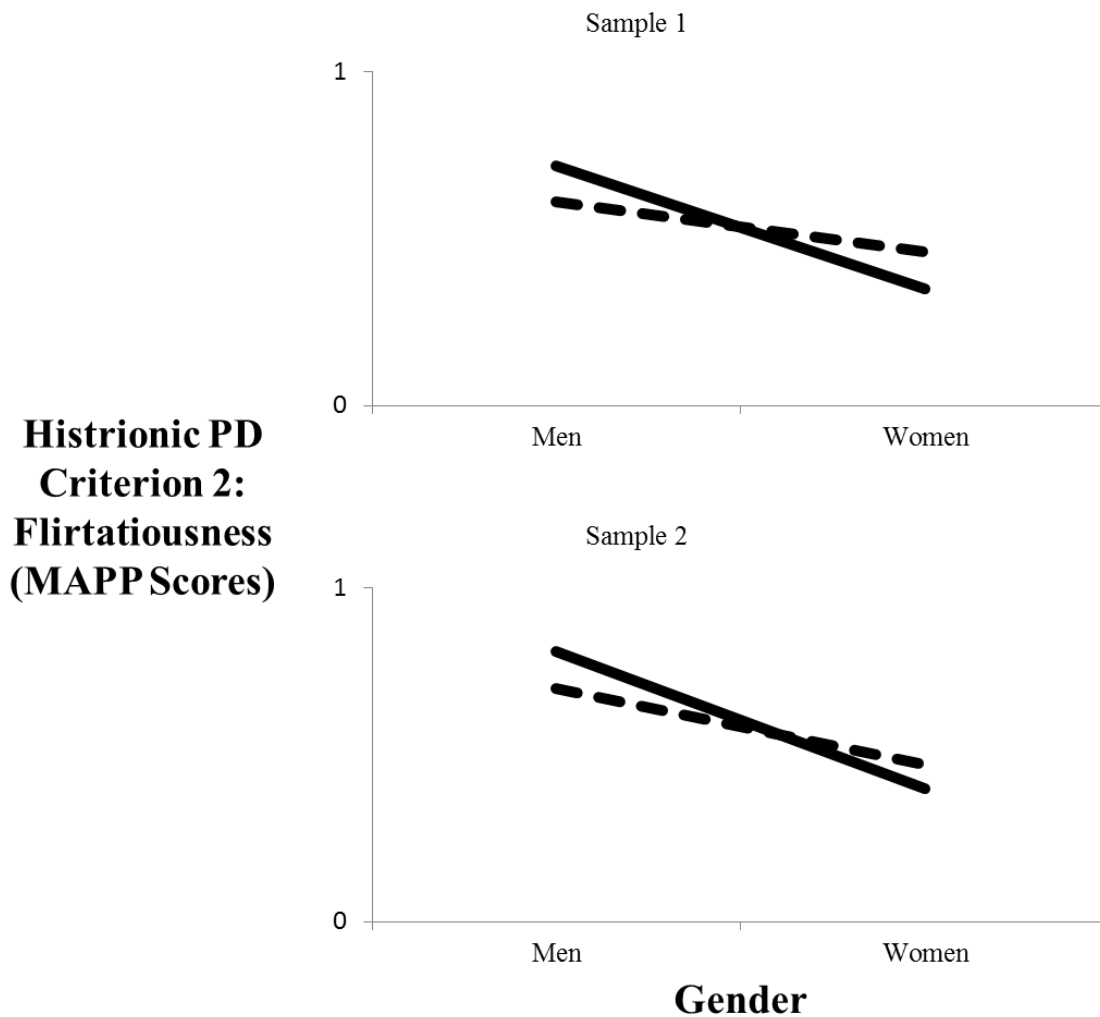
Self vs. Informant Reported Histrionic Personality Disorder Severity across Gender (sample 2)

Item		Men n = 319	Women n = 371	F for Gender	F for Perspective	F for G X P
1) Attention-seeking	Self	.48 (.76)	.34 (.59)	5.26	42.49*	.40
	Informant	.73 (1.07)	.64 (.99)	(.01)	(.06)	(.00)
2) Flirtatiousness	Self	.81 (.98)	.40 (.69)	36.96*	.26	4.53
	Informant	.70 (1.02)	.47 (.81)	(.05)	(.00)	(.01)
3) rapid/shallow emotions	Self	1.41 (1.09)	1.35 (.96)	1.31	1.11	5.57
	Informant	1.34 (1.13)	1.54 (1.15)	(.00)	(.00)	(.01)
4) Uses body for attention	Self	.48 (.73)	.46 (.70)	.78	1.60	2.27
	Informant	.47 (.87)	.57 (.94)	(.00)	(.00)	(.00)
5) Impressionistic speech	Self	.88 (.83)	.73 (.81)	2.90	15.10*	1.46
	Informant	1.01 (1.07)	.98 (1.00)	(.00)	(.02)	(.00)
6) Self-dramatization	Self	1.01 (.95)	.85 (.90)	.16	7.79*	6.47
	Informant	1.02 (1.12)	1.12 (1.08)	(.00)	(.01)	(.01)
7) Suggestibility	Self	.64 (.78)	.64 (.70)	.77	.60	1.01
	Informant	.63 (.88)	.71 (.86)	(.00)	(.00)	(.00)
8) Intimacy assumptions	Self	.72 (.88)	.73 (.87)	3.55	7.36*	4.62
	Informant	.74 (.99)	.95 (1.05)	(.01)	(.01)	(.01)
Total	Self	6.41 (3.99)	5.50 (3.48)	1.19	17.30*	9.51*
	Informant	6.63 (4.76)	6.98 (4.95)	(.00)	(.03)	(.01)
Criteria Present	Self	.50 (.97)	.33 (.70)	1.77	41.42*	3.23
	Informant	.75 (1.18)	.77 (1.26)	(.00)	(.06)	(.01)
Diagnostic Threshold	Self	.01 (.10)	.00 (.00)	.00	4.86	2.70
	Informant	.01 (.10)	.02 (.15)	(.00)	(.01)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 9

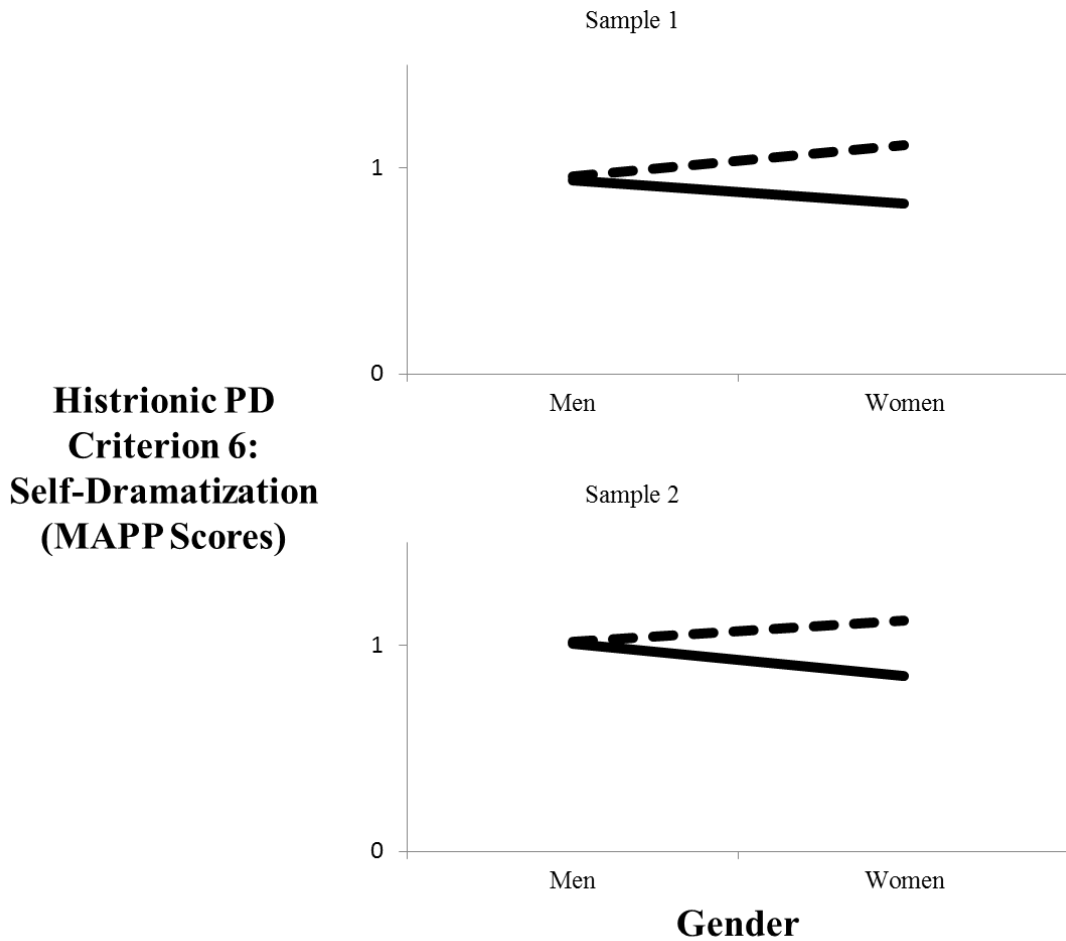
Self vs. Informant Reported Histrionic Personality Disorder Severity across Gender: Criterion 2



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. **Difference in gender: sample 1: [F(1,698) = 26.63, $p < .01$] sample 2: [F(1,690) = 36.96, $p < .01$].** Difference in perspective: sample 1: [F(1,698) = .00, $p > .01$] sample 2: [F(1,690) = .26, $p > .01$]. Interaction Gender X Perspective = sample 1: [F(1,698) = 8.96, $p > .01$] sample 2: [F(1,690) = 4.53, $p > .01$].

Figure 10

Self vs. Informant Reported Histrionic Personality Disorder Severity across Gender: Criterion 6



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. Difference in gender: sample 1: $[F(1,698) = .07, p > .01]$ sample 2: $[F(1,690) = .16, p > .01]$.

Difference in perspective: sample 1: $[F(1,698) = 9.21, p < .01]$ sample 2: $[F(1,690) = 7.79, p < .01]$. Interaction Gender X Perspective = sample 1: $[F(1,698) = 6.91, p < .01]$ sample 2: $[F(1,690) = 6.47, p > .01]$.

Narcissistic Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the narcissistic PD dimension did not reveal a significant interaction across gender and perspective (Tables 7a and 7b). There was a statistically significant main effect for perspective (see Figure 11), in that informants tended to report higher levels of narcissistic PD severity than did selves, sample 1: $F(1,690) = 18.21, p < .01$ sample 2: $F(1,684) = 42.89, p < .01$. This effect was replicated at the level of total number of criteria endorsed, sample 1: $F(1,690) = 59.07, p < .01$ sample 2: $F(1,684) = 57.67, p < .01$. Furthermore, the effect was also replicated at the diagnostic threshold level, treating the syndrome as present or absent, sample 1: $F(1,690) = 11.78, p < .01$ sample 2: $F(1,684) = 24.01, p < .01$. These results suggest that one may draw an entirely different conclusion about a person's level of narcissism depending upon the perspective of the assessment.

Analyses of the individual items revealed that particular criteria had statistically significant main effects for gender or perspective. Informants, in all instances, reported higher levels of grandiosity, uniqueness beliefs, entitlement, exploitative behaviors, and enviousness, than was observed in self-report (see Tables 7a and 7b for values). Two narcissistic PD criteria also had significant main effects for gender: lacking in empathy and arrogant behaviors. In both cases, men and their informants reported more severely lacking empathy and more frequently displaying arrogant behaviors than did women (see Tables 7a and 7b for values).

Table 7a

Self vs. Informant Reported Narcissistic Personality Disorder Severity across Gender (sample 1)

Item		Men n = 304	Women n = 386	F for Gender	F for Perspective	F for G X P
1) Grandiosity	Self	.49 (.82)	.31 (.61)	5.12	10.41*	3.53
	Informant	.54 (.80)	.51 (.90)	(.01)	(.02)	(.01)
2) Fantasies of success	Self	.68 (.79)	.58 (.76)	1.60	.24	.96
	Informant	.66 (.91)	.64 (.82)	(.00)	(.00)	(.00)
3) Uniqueness beliefs	Self	.32 (.67)	.26 (.64)	.02	17.03*	1.61
	Informant	.43 (.82)	.47 (.89)	(.00)	(.02)	(.00)
4) Requires admiration	Self	1.17 (.97)	1.25 (1.00)	.33	6.11	.69
	Informant	1.34 (1.15)	1.34 (1.19)	(.00)	(.01)	(.00)
5) Entitlement	Self	.42 (.68)	.39 (.68)	.74	38.77*	.10
	Informant	.69 (.92)	.63 (1.00)	(.00)	(.05)	(.00)
6) Exploitative	Self	.21 (.52)	.11 (.39)	3.15	40.84*	3.15
	Informant	.36 (.72)	.37 (.81)	(.00)	(.06)	(.01)
7) Lacks empathy	Self	1.21 (.94)	1.09 (.88)	10.18*	5.61	1.36
	Informant	1.15 (1.09)	.91 (.96)	(.02)	(.01)	(.00)
8) Envious	Self	.03 (.16)	.01 (.11)	.09	11.22*	2.80
	Informant	.04 (.20)	.06 (.24)	(.00)	(.02)	(.00)
9) Arrogant behaviors	Self	.84 (.95)	.59 (.83)	7.80*	5.76	3.24
	Informant	.87 (1.02)	.80 (1.05)	(.01)	(.01)	(.01)
Total	Self	7.38 (4.71)	6.48 (4.22)	3.88	18.21*	1.03
	Informant	8.26 (5.90)	7.91 (6.56)	(.01)	(.03)	(.00)
Criteria Present	Self	.48 (.83)	.35 (.66)	2.14	59.07*	.63
	Informant	.82 (1.17)	.78 (1.23)	(.00)	(.08)	(.00)
Diagnostic Threshold	Self	.00 (.00)	.00 (.05)	1.09	11.78*	.35
	Informant	.02 (.13)	.03 (.16)	(.00)	(.02)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 7b

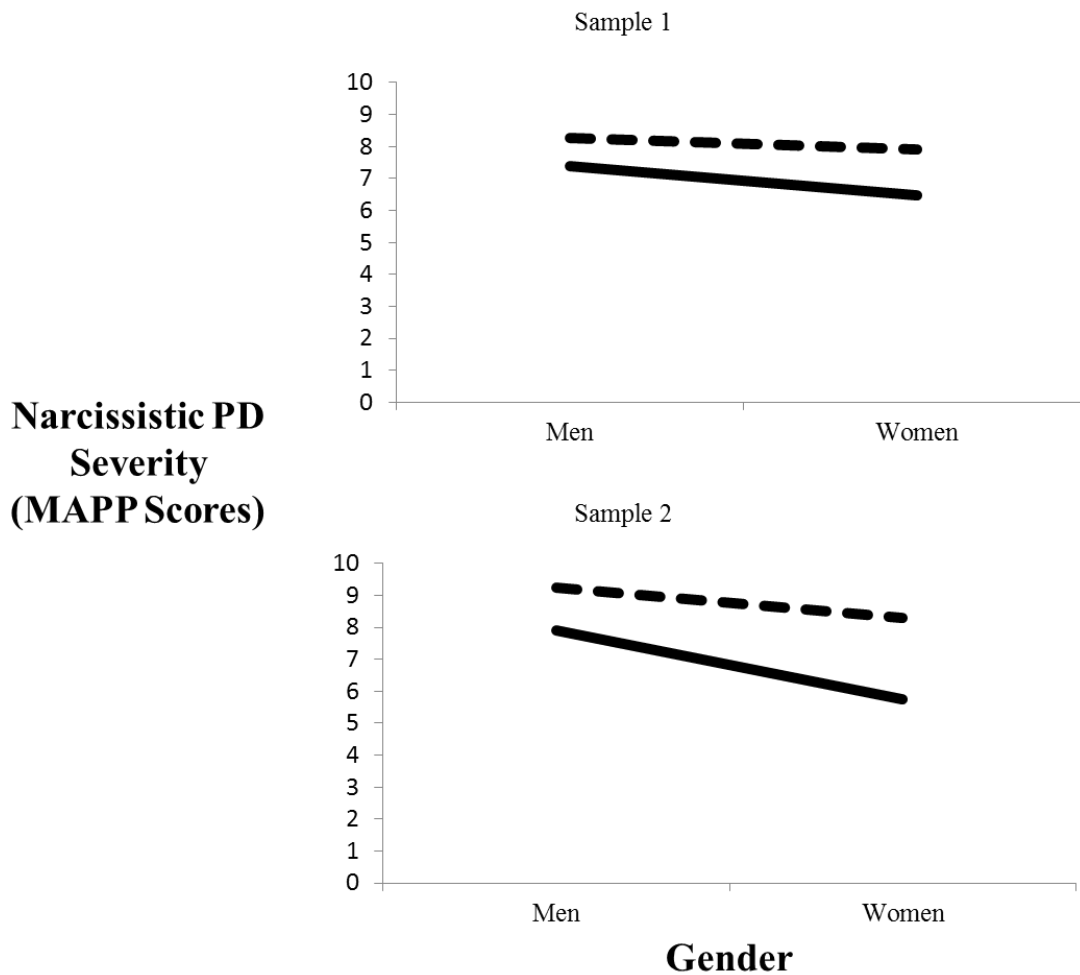
Self vs. Informant Reported Narcissistic Personality Disorder Severity across Gender (sample 2)

Item		Men n = 310	Women n = 374	F for Gender	F for Perspective	F for G X P
1) Grandiosity	Self	.60 (.91)	.29 (.57)	37.09*	10.75*	.11
	Informant	.73 (1.10)	.44 (.85)	(.05)	(.02)	(.00)
2) Fantasies of success	Self	.59 (.79)	.48 (.69)	.44	10.33*	3.96
	Informant	.64 (.92)	.68 (.87)	(.00)	(.02)	(.01)
3) Uniqueness beliefs	Self	.35 (.76)	.19 (.52)	2.38	248.37*	2.38
	Informant	.40 (.85)	.43 (.85)	(.00)	(.02)	(.01)
4) Requires admiration	Self	1.35 (1.04)	1.14 (.90)	4.13	14.93*	1.90
	Informant	1.50 (1.34)	1.44 (1.24)	(.01)	(.02)	(.00)
5) Entitlement	Self	.40 (.67)	.31 (.64)	8.50*	77.11*	1.22
	Informant	.86 (1.11)	.67 (.97)	(.01)	(.10)	(.00)
6) Exploitative	Self	.25 (.60)	.07 (.31)	7.63*	50.07*	4.28
	Informant	.43 (.86)	.39 (.86)	(.01)	(.07)	(.01)
7) Lacks empathy	Self	1.22 (.96)	1.00 (.94)	20.77*	.02	.38
	Informant	1.24 (1.13)	.96 (.99)	(.03)	(.00)	(.00)
8) Envious	Self	.03 (.16)	.02 (.13)	.00	16.60*	.71
	Informant	.06 (.28)	.07 (.29)	(.00)	(.02)	(.00)
9) Arrogant behaviors	Self	.87 (.94)	.56 (.80)	16.71*	8.90*	3.83
	Informant	.93 (1.09)	.80 (1.01)	(.02)	(.01)	(.01)
Total	Self	7.80 (5.00)	5.75 (3.88)	20.06*	42.89*	3.28
	Informant	9.25 (7.40)	8.31 (6.81)	(.03)	(.06)	(.01)
Criteria Present	Self	.61 (.98)	.29 (.63)	20.50*	57.67*	.11
	Informant	1.07 (1.54)	.79 (1.40)	(.03)	(.08)	(.00)
Diagnostic Threshold	Self	.01 (.08)	.00 (.05)	.84	24.01*	.21
	Informant	.05 (.22)	.04 (.20)	(.00)	(.03)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 11

Self vs. Informant Reported Narcissistic Personality Disorder Severity across Gender



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. Difference in gender: sample 1: $[F(1,690) = 3.88, p > .01]$ sample 2: $[F(1,684) = 20.06, p < .01]$. **Difference in perspective: sample 1: $[F(1,690) = 18.21, p < .01]$ sample 2: $[F(1,684) = 42.89, p < .01]$.** Interaction Gender X Perspective = sample 1: $[F(1,690) = 1.03, p > .01]$ sample 2: $[F(1,684) = 3.28, p > .01]$.

Avoidant Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the avoidant PD dimension did not reveal a significant interaction across gender and perspective (Tables 8a and 8b). There was one statistically significant main effects for perspective. A significant main effect was found for perspective for the avoidant PD criterion feelings of inadequacy (Figure 12). Targets self-reported a higher tendency to have feelings of inadequacy than did their informants, sample 1: $F(1,701) = 57.04, p < .01$ sample 2: $F(1,705) = 29.35, p < .01$.

Table 8a

Self vs. Informant Reported Avoidant Personality Disorder Severity across Gender (sample 1)

Item		Men n = 308	Women n = 393	F for Gender	F for Perspective	F for G X P
1) Avoids interactions	Self	.29 (.62)	.31 (.74)	.48	.83	.01
	Informant	.26 (.64)	.28 (.63)	(.00)	(.00)	(.00)
2) Needs acceptance	Self	.50 (.77)	.47 (.77)	.05	.19	.40
	Informant	.46 (.80)	.48 (.83)	(.00)	(.00)	(.00)
3) Restraint with others	Self	.34 (.65)	.36 (.70)	.07	1.29	.03
	Informant	.31 (.68)	.31 (.63)	(.00)	(.00)	(.00)
4) Fears rejection	Self	.73 (.90)	.84 (.92)	4.16	3.52	.05
	Informant	.81 (1.01)	.94 (1.02)	(.01)	(.01)	(.00)
5) Feelings of inadequacy	Self	.95 (1.06)	.96 (1.03)	.27	57.04*	.14
	Informant	.58 (.91)	.63 (.97)	(.00)	(.08)	(.00)
6) Views self as inferior	Self	.93 (.90)	.98 (.95)	2.82	9.00*	.75
	Informant	.75 (.93)	.89 (1.03)	(.00)	(.01)	(.00)
7) Reluctance toward risk	Self	.89 (.87)	.84 (.84)	.15	16.98*	2.80
	Informant	.64 (.83)	.73 (.85)	(.00)	(.02)	(.00)
Total	Self	4.63 (3.92)	4.76 (4.17)	1.34	12.74*	.73
	Informant	3.81 (4.03)	4.25 (4.26)	(.00)	(.02)	(.00)
Criteria Present	Self	.31 (.80)	.34 (.89)	1.00	.17	.11
	Informant	.31 (.80)	.37 (.85)	(.00)	(.00)	(.00)
Diagnostic Threshold	Self	.02 (.13)	.02 (.15)	.30	.13	.13
	Informant	.02 (.13)	.02 (.13)	(.00)	(.00)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 8b

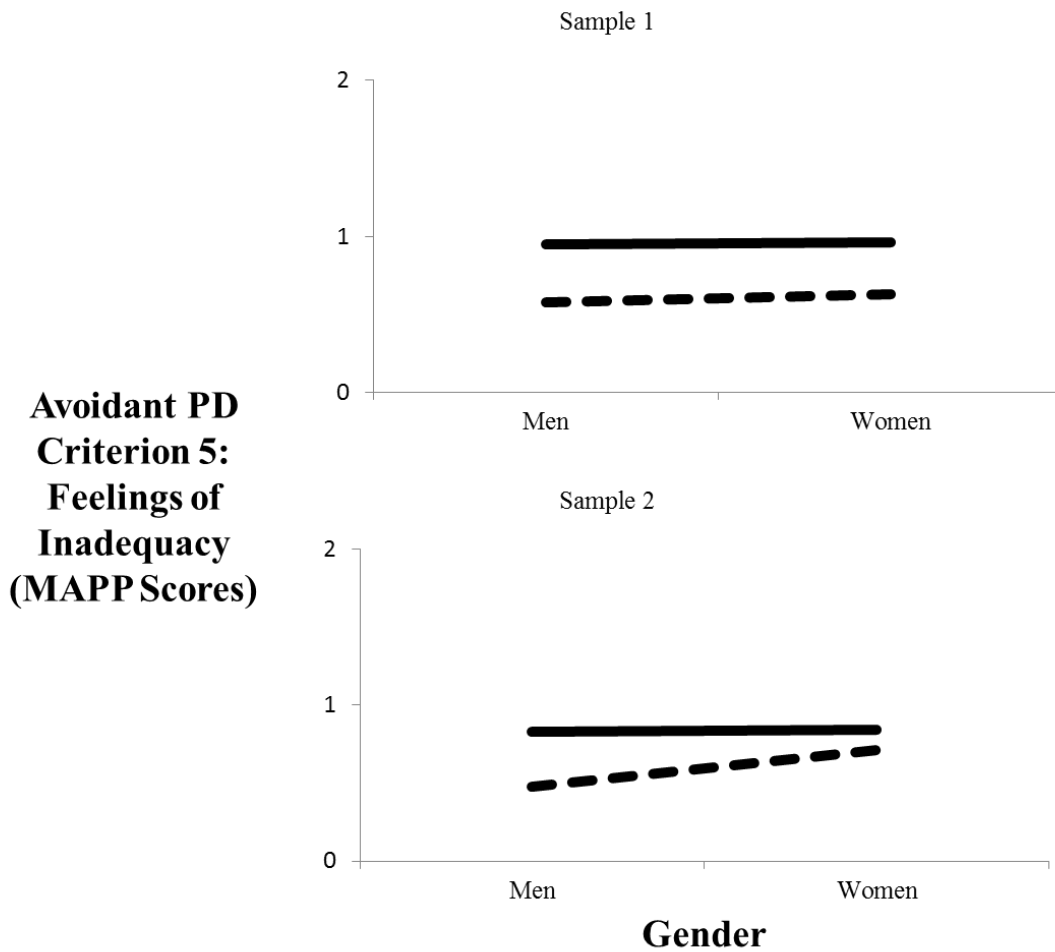
Self vs. Informant Reported Avoidant Personality Disorder Severity across Gender (sample 2)

Item		Men n = 322	Women n = 383	F for Gender	F for Perspective	F for G X P
1) Avoids interactions	Self	.24 (.58)	.24 (.56)	.24	3.22	.27
	Informant	.28 (.62)	.32 (.70)	(.00)	(.01)	(.00)
2) Needs acceptance	Self	.43 (.76)	.36 (.64)	.10	2.32	4.32
	Informant	.41 (.81)	.50 (.79)	(.00)	(.00)	(.01)
3) Restraint with others	Self	.30 (.60)	.26 (.60)	.05	1.40	3.13
	Informant	.29 (.68)	.35 (.68)	(.00)	(.00)	(.00)
4) Fears rejection	Self	.69 (.87)	.77 (.89)	5.41	19.21*	1.76
	Informant	.83 (1.07)	1.03 (1.04)	(.01)	(.03)	(.00)
5) Feelings of inadequacy	Self	.83 (1.01)	.84 (1.02)	4.06	29.35*	5.85
	Informant	.48 (.83)	.71 (.96)	(.01)	(.04)	(.01)
6) Views self as inferior	Self	.92 (.92)	.91 (.94)	4.74	3.48	9.14*
	Informant	.70 (.94)	.96 (1.01)	(.01)	(.01)	(.01)
7) Reluctance toward risk	Self	.84 (.86)	.73 (.80)	.04	1.19	7.73*
	Informant	.67 (.88)	.80 (.96)	(.00)	(.00)	(.01)
Total	Self	4.26 (3.87)	4.10 (3.78)	3.01	.01	9.95*
	Informant	3.67 (3.97)	4.67 (4.38)	(.00)	(.00)	(.01)
Criteria Present	Self	.26 (.80)	.28 (.81)	1.07	8.03*	.70
	Informant	.35 (.82)	.43 (.96)	(.00)	(.01)	(.00)
Diagnostic Threshold	Self	.02 (.15)	.02 (.12)	.34	.10	2.02
	Informant	.01 (.10)	.02 (.15)	(.00)	(.00)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 12

Self vs. Informant Reported Avoidant Personality Disorder Severity across Gender: Criterion 5



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. Difference in gender: sample 1: $[F(1,701) = .27, p > .01]$ sample 2: $[F(1,705) = 4.06, p > .01]$. **Difference in perspective: sample 1: $[F(1,701) = 57.04, p < .01]$ sample 2: $[F(1,705) = 29.35, p < .01]$.** Interaction Gender X Perspective = sample 1: $[F(1,701) = .14, p > .01]$ sample 2: $[F(1,705) = 5.85, p > .01]$.

Dependent Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the dependent PD dimension did not reveal a significant interaction across gender and perspective (Tables 9a and 9b). There was a statistically significant main effect for perspective, in that informants tended to report higher levels of dependent PD severity than did selves, sample 1: $F(1,691) = 9.26, p < .01$ sample 2: $F(1,689) = 38.54, p < .01$. This effect was also replicated at the level of total number of criteria endorsed, sample 1: $F(1,691) = 17.54, p < .01$ sample 2: $F(1,689) = 37.27, p < .01$. These findings underscore the importance of including informant perspectives to potentially detect dependent behaviors that selves may be unable or unwilling to report on.

Analyses of the individual items revealed that particular criteria had statistically significant main effects for gender or perspective. Informants, in all instances, reported higher levels of problems with decision making, diffusion of responsibility, requirements of nurturance, feelings of helplessness when alone, and fears of abandonment (see Tables 9a and 9b for values). Two dependent PD criteria also had significant main effects for gender: substantially increased need for relationships and fears of abandonment. Men and their informants reported more severely needing relationships than did women (Figure 13). On the other hand, women and their informants reported more severe fears of abandonment than did men (Figure 14). These findings potentially shed light on the ways men and women tend to differ in their presentation and experience of dependent PD.

Table 9a

Self vs. Informant Reported Dependent Personality Disorder Severity across Gender (sample 1)

Item		Men n = 300	Women n = 391	F for Gender	F for Perspective	F for G X P
1) Decision problems	Self	.35 (.67)	.31 (.64)	.35	8.76*	3.01
	Informant	.39 (.69)	.48 (.81)	(.00)	(.01)	(.00)
2) Diffuses responsibility	Self	.42 (.70)	.44 (.68)	2.39	9.10*	6.43
	Informant	.62 (.99)	.46 (.78)	(.00)	(.01)	(.01)
3) Inability to disagree	Self	.49 (.73)	.58 (.85)	4.91	6.98*	.10
	Informant	.38 (.70)	.49 (.78)	(.01)	(.01)	(.00)
4) Fear of independence	Self	.31 (.60)	.32 (.59)	.09	.24	.01
	Informant	.33 (.62)	.34 (.70)	(.00)	(.00)	(.00)
5) Requires nurturance	Self	.12 (.44)	.11 (.40)	.41	7.61*	.01
	Informant	.20 (.59)	.18 (.55)	(.00)	(.01)	(.00)
6) Feels helpless alone	Self	.17 (.54)	.22 (.51)	5.74	19.66*	1.29
	Informant	.27 (.60)	.39 (.77)	(.01)	(.03)	(.00)
7) Requires relationships	Self	.71 (.97)	.28 (.62)	58.47*	.22	2.13
	Informant	.63 (1.05)	.32 (.67)	(.08)	(.00)	(.00)
8) Fears of abandonment	Self	.38 (.71)	.56 (.82)	16.84*	20.61*	.92
	Informant	.53 (.89)	.79 (1.07)	(.02)	(.03)	(.00)
Total	Self	2.95 (3.20)	2.81 (3.07)	.01	9.26*	.47
	Informant	3.34 (3.84)	3.44 (3.96)	(.00)	(.01)	(.00)
Criteria Present	Self	.18 (.57)	.15 (.52)	.45	17.54*	.00
	Informant	.31 (.72)	.29 (.78)	(.00)	(.03)	(.00)
Diagnostic Threshold	Self	.00 (.06)	.00 (.00)	.56	1.67	.07
	Informant	.01 (.08)	.01 (.07)	(.00)	(.00)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 9b

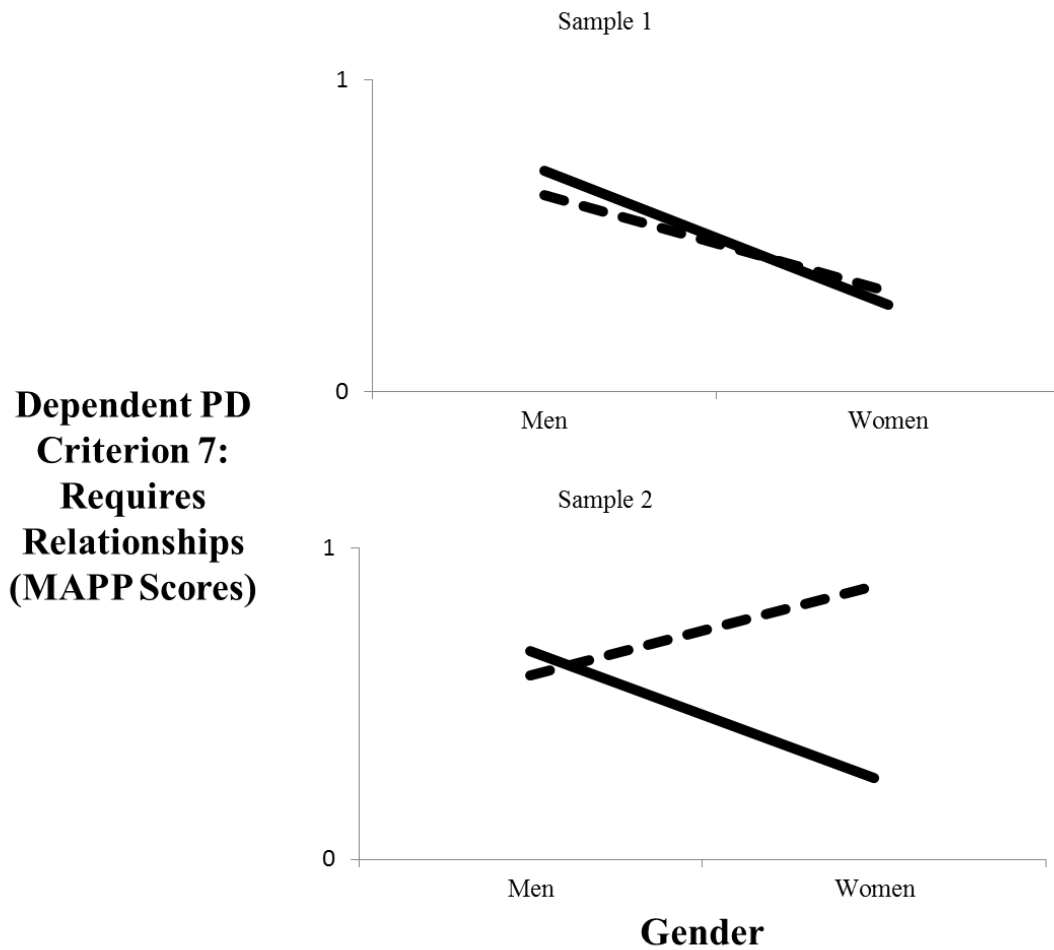
Self vs. Informant Reported Dependent Personality Disorder Severity across Gender (sample 2)

Item		Men n = 313	Women n = 376	F for Gender	F for Perspective	F for G X P
1) Decision problems	Self	.35 (.66)	.30 (.57)	.02	10.17*	2.37
	Informant	.41 (.76)	.47 (.79)	(.00)	(.02)	(.00)
2) Diffuses responsibility	Self	.43 (.69)	.37 (.62)	2.14	24.62*	.17
	Informant	.63 (.95)	.55 (.87)	(.00)	(.04)	(.00)
3) Inability to disagree	Self	.44 (.70)	.54 (.79)	10.70*	.23	1.48
	Informant	.41 (.78)	.61 (.85)	(.02)	(.00)	(.00)
4) Fear of independence	Self	.26 (.57)	.29 (.56)	.76	11.66*	.04
	Informant	.37 (.77)	.41 (.79)	(.00)	(.02)	(.00)
5) Requires nurturance	Self	.16 (.53)	.05 (.23)	5.80	28.19*	1.75
	Informant	.28 (.76)	.24 (.66)	(.01)	(.04)	(.00)
6) Feels helpless alone	Self	.12 (.41)	.19 (.48)	4.60	55.60*	.25
	Informant	.34 (.75)	.43 (.75)	(.01)	(.08)	(.00)
7) Requires relationships	Self	.67 (.98)	.26 (.58)	34.28*	.71	6.44
	Informant	.59 (1.11)	.40 (.83)	(.05)	(.00)	(.01)
8) Fears of abandonment	Self	.42 (.76)	.52 (.86)	12.33*	33.96*	4.38
	Informant	.59 (.97)	.88 (1.07)	(.02)	(.05)	(.01)
Total	Self	2.86 (3.15)	2.51 (2.88)	.00	38.54*	.380
	Informant	3.62 (4.55)	3.98 (4.35)	(.00)	(.05)	(.01)
Criteria Present	Self	.17 (.51)	.13 (.47)	1.28	37.27*	.03
	Informant	.41 (1.01)	.35 (.86)	(.00)	(.05)	(.00)
Diagnostic Threshold	Self	.00 (.00)	.00 (.05)	.07	4.84	.82
	Informant	.01 (.11)	.01 (.09)	(.00)	(.01)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 13

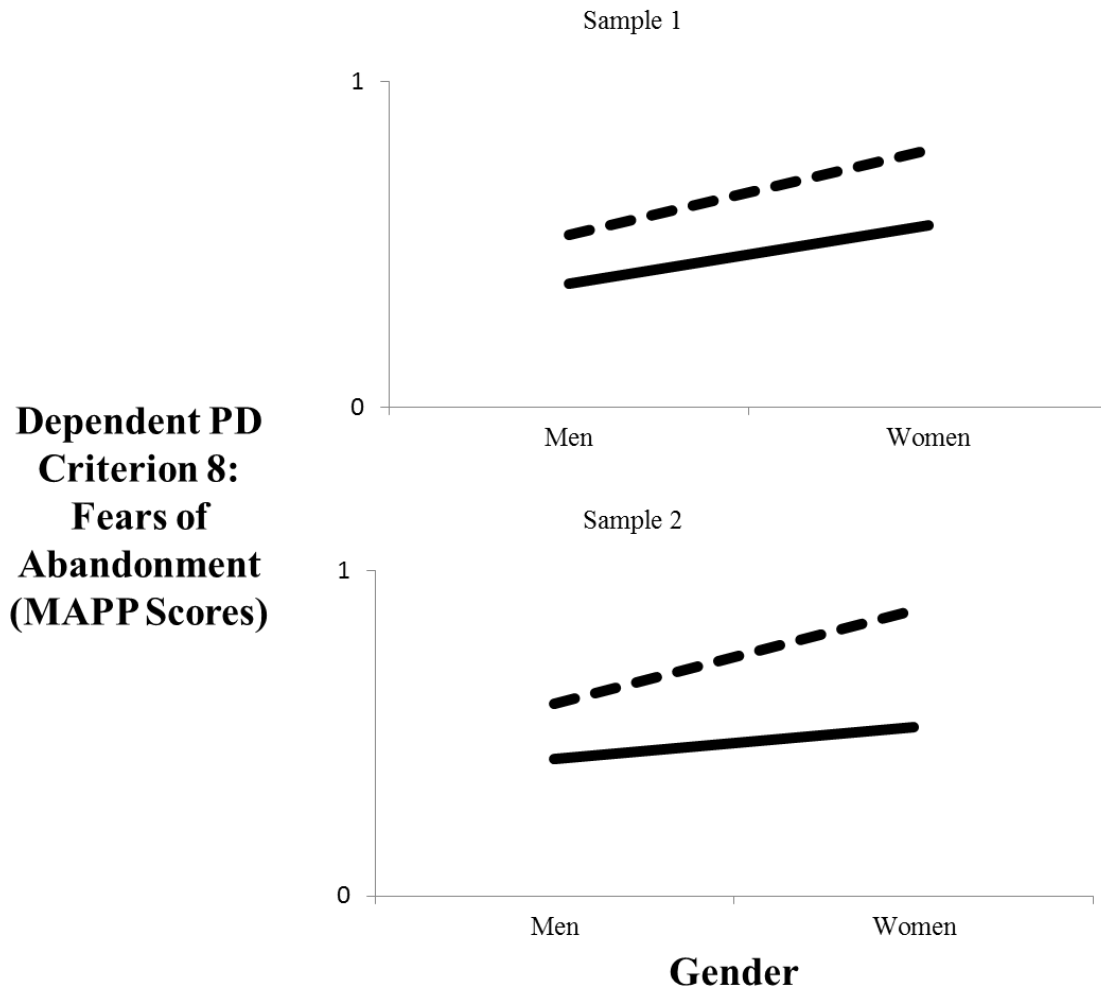
Self vs. Informant Reported Dependent Personality Disorder Severity across Gender: Criterion 7



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. **Difference in gender: sample 1: [F(1,691) = 58.47, $p < .01$] sample 2: [F(1,689) = 34.28, $p < .01$].** Difference in perspective: sample 1: [F(1,691) = .22, $p > .01$] sample 2: [F(1,689) = 57.04, $p > .01$]. Interaction Gender X Perspective = sample 1: [F(1,691) = 2.13, $p > .01$] sample 2: [F(1,689) = 6.44, $p > .01$].

Figure 14

Self vs. Informant Reported Dependent Personality Disorder Severity across Gender: Criterion 8



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. **Difference in gender: sample 1: [F(1,691) = 16.84, $p < .01$] sample 2: [F(1,689) = 12.33, $p < .01$]. Difference in perspective: sample 1: [F(1,691) = 20.61, $p < .01$] sample 2: [F(1,689) = 33.96, $p < .01$]. Interaction Gender X Perspective = sample 1: [F(1,691) = .92, $p > .01$] sample 2: [F(1,689) = 4.38, $p > .01$].**

Obsessive Compulsive Personality Disorder

Findings from a two by two (Gender x Perspective) ANOVA of the obsessive compulsive PD dimension did not reveal a significant interaction across gender and perspective (Tables 10a and 10b). There was a statistically significant main effect for perspective (Figure 15), in that informants tended to report higher levels of obsessive compulsive PD severity than did selves, sample 1: $F(1,693) = 55.61, p < .01$ sample 2: $F(1,689) = 53.82, p < .01$. This effect was replicated at the level of total number of criteria endorsed, sample 1: $F(1,693) = 120.32, p < .01$ sample 2: $F(1,689) = 100.03, p < .01$. Furthermore, the effect was also replicated at the diagnostic threshold level, treating the syndrome as present or absent, sample 1: $F(1,693) = 16.65, p < .01$ sample 2: $F(1,689) = 24.30, p < .01$. These results suggest that one may draw an entirely different conclusion about a person's obsessive compulsive PD severity, including whether or not they meet criteria for the diagnosis, depending upon the perspective of the assessment.

Analyses of the individual items revealed that particular criteria had statistically significant main effects for gender or perspective. Informants, in all instances, reported higher preoccupation with details, inflexibility, hoarding, and stubbornness than did selves (see Tables 10a and 10b for values). Stubbornness was reported to be more severe for men and their informants than for women, sample 1: $F(1,693) = 9.39, p < .01$ sample 2: $F(1,689) = 25.78, p < .01$.

Table 10a

Self vs. Informant Reported Obsessive-Compulsive Personality Disorder Severity across Gender (sample 1)

Item		Men n = 306	Women n = 387	F for Gender	F for Perspective	F for G X P
1) Preoccupied by details	Self	1.24 (1.05)	1.18 (1.10)	1.61	23.56*	5.55
	Informant	1.39 (1.25)	1.61 (1.34)	(.00)	(.03)	(.01)
2) Perfectionism	Self	.87 (.95)	.88 (.94)	.20	.38	.60
	Informant	.94 (1.06)	.87 (1.08)	(.00)	(.00)	(.00)
3) Excessively productive	Self	.82 (.92)	.58 (.83)	7.56*	7.20*	2.89
	Informant	.87 (1.06)	.79 (1.08)	(.01)	(.01)	(.00)
4) Inflexible	Self	1.61 (1.16)	1.63 (1.18)	4.50	134.02*	4.87
	Informant	2.20 (1.35)	2.49 (1.28)	(.01)	(.16)	(.01)
5) Hoards useless objects	Self	1.24 (1.23)	1.09 (1.13)	.34	19.64*	2.79
	Informant	1.40 (1.39)	1.45 (1.34)	(.00)	(.03)	(.00)
6) Reluctant to delegate	Self	1.14 (.90)	1.07 (.94)	.05	.10	1.20
	Informant	1.06 (1.04)	1.11 (1.11)	(.00)	(.00)	(.00)
7) Miserly spending style	Self	.156 (1.14)	1.27 (1.09)	12.94*	8.43*	.23
	Informant	1.70 (1.30)	1.47 (1.30)	(.02)	(.01)	(.00)
8) Stubbornness	Self	1.40 (.95)	1.15 (.86)	9.39*	13.88*	1.54
	Informant	1.53 (1.08)	1.41 (1.20)	(.01)	(.02)	(.00)
Total	Self	9.87 (4.49)	8.86 (4.49)	2.55	55.61*	5.71
	Informant	11.08 (5.00)	11.20 (5.14)	(.00)	(.07)	(.01)
Criteria Present	Self	1.15 (1.32)	.93 (1.20)	.79	120.32*	5.01
	Informant	1.76 (1.48)	1.84 (1.50)	(.00)	(.15)	(.01)
Diagnostic Threshold	Self	.07 (.26)	.05 (.22)	.21	16.63*	.73
	Informant	.12 (.33)	.13 (.33)	(.00)	(.02)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Table 10b

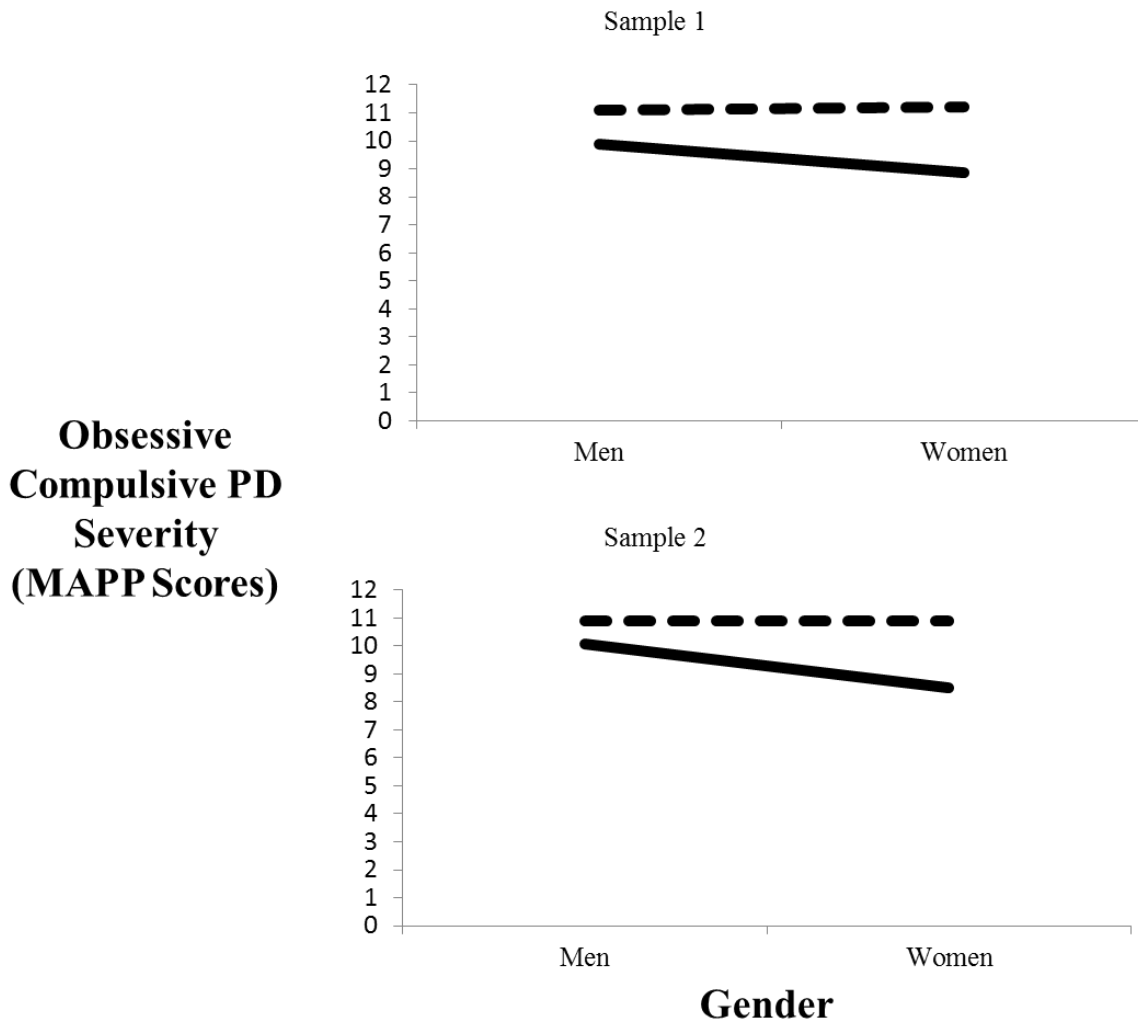
Self vs. Informant Reported Obsessive-Compulsive Personality Disorder Severity across Gender (sample 2)

Item		Men n = 317	Women n = 372	F for Gender	F for Perspective	F for G X P
1) Preoccupied by details	Self	1.25 (1.00)	1.17 (1.08)	1.22	15.55*	7.71*
	Informant	1.32 (1.27)	1.55 (1.25)	(.00)	(.02)	(.01)
2) Perfectionism	Self	.95 (.97)	.71 (.87)	10.95*	.22	1.01
	Informant	.92 (1.11)	.78 (.95)	(.02)	(.00)	(.00)
3) Excessively productive	Self	.78 (.93)	.62 (.84)	5.82	2.61	.14
	Informant	.83 (1.05)	.72 (.97)	(.00)	(.00)	(.00)
4) Inflexible	Self	1.82 (1.23)	1.55 (1.14)	1.76	75.47*	7.40*
	Informant	2.20 (1.28)	2.27 (1.34)	(.00)	(.10)	(.01)
5) Hoards useless objects	Self	1.21 (1.20)	.99 (1.14)	2.47	44.68*	3.16
	Informant	1.48 (1.38)	1.45 (1.31)	(.00)	(.06)	(.01)
6) Reluctant to delegate	Self	1.11 (.97)	1.09 (.95)	1.39	.03	2.62
	Informant	1.02 (1.10)	1.17 (1.01)	(.00)	(.00)	(.00)
7) Miserly spending style	Self	.153 (1.13)	1.31 (1.08)	.80	5.21	7.78*
	Informant	1.50 (1.32)	1.60 (1.25)	(.00)	(.01)	(.01)
8) Stubbornness	Self	1.41 (.95)	1.07 (.87)	25.78*	25.78*	.68
	Informant	1.62 (1.17)	1.36 (1.07)	(.04)	(.04)	(.00)
Total	Self	10.06 (4.52)	8.52 (4.25)	7.76*	53.82*	12.42*
	Informant	10.90 (5.02)	10.90 (4.67)	(.02)	(.07)	(.02)
Criteria Present	Self	1.26 (1.40)	.86 (1.15)	11.14*	100.03*	3.35
	Informant	1.80 (1.58)	1.65 (1.42)	(.02)	(.13)	(.01)
Diagnostic Threshold	Self	.07 (.26)	.03 (.18)	3.82	24.30*	.19
	Informant	.14 (.34)	.11 (.31)	(.01)	(.03)	(.00)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

Figure 15

Self vs. Informant Reported Obsessive Compulsive Personality Disorder Severity across Gender



Note. PD = Personality Disorder, MAPP = Multisource Assessment of Personality Pathology. Solid line = self-report. Dashed line = informant report. Difference in gender: sample 1: $[F(1,693) = 2.55, p > .01]$ sample 2: $[F(1,689) = 7.76, p < .01]$. **Difference in perspective: sample 1: $[F(1,693) = 55.61, p < .01]$ sample 2: $[F(1,689) = 53.82, p < .01]$.** Interaction Gender X Perspective = sample 1: $[F(1,693) = 5.71, p > .01]$ sample 2: $[F(1,689) = 12.42, p < .01]$.

Differential Item Functioning Analyses

IRT analyses of DIF rest on the assumption that items on a scale are unidimensional. It has been recommended that this assumption is evaluated using multiple criteria (Gessaroli and De Champlain 1996; Fabrigar et al. 1999; Davison and Sireci, 2000). Thus, a series of EFAs were first conducted using the ratio of the first and second eigenvalues as an index of unidimensionality (Lord, 1980; Lumsden, 1957, 1961). If the ratio of the first to second eigenvalue was greater than three, the PD would be considered reasonably unidimensional. This ratio of first to second eigenvalues-greater than three rule has been cited as commonly applied in reviews of the literature on testing of unidimensionality (Slocum-Gori & Zumbo, 2011). The results of the EFAs for all of the PDs along with the ratios of the first to second eigenvalue are presented below in Table 11. Nine of the ten PDs did not have ratios larger than three, and were therefore not considered to be sufficiently unidimensional. This finding is consistent with many studies in the previous literature that have suggested PDs are potentially multidimensional (e.g. Chmielewski & Watson, 2008). If the EFAs revealed sufficient fit, the PDs would have been subjected to a series of CFAs that evaluate unidimensionality using the guidelines outlined by Hu and Bentler (1999), which have been critiqued for noted challenges with regard to fitting personality questionnaire data (Heene et al., 2011; Marsh, 2004; Marsh et al., 2009). The only PD that the EFAs revealed to have sufficient unidimensionality was Avoidant PD. Avoidant PD had no significant differences across gender (Tables 8a and 8b). Given that only one PD with no gender related significant differences was found to be sufficiently unidimensional, the remaining IRT analyses of DIF across gender were not conducted in the present study.

Table 11

Summary of Exploratory Factor Analysis Results for Personality Disorders

Personality Disorder	Eigenvalues		
	Factor 1	Factor 2	Ratio
Paranoid	2.60	.95	2.74
Schizoid	2.25	1.04	2.16
Schizotypal	2.80	1.16	2.41
Antisocial	1.80	1.08	1.67
Borderline	2.97	1.01	2.94
Histrionic	2.60	1.07	2.43
Narcissistic	2.82	.98	2.88
Avoidant	3.34	.75	4.45
Dependent	2.97	.99	3.00
Obsessive Compulsive	2.41	.99	2.43

Note: maximum likelihood extraction method.

Table 12

Summary of Self vs. Informant Reported PD Severity across Gender for all PDs

Personality Disorder	F for Gender	F for Perspective	F for Gender X Perspective
Paranoid	.18 (.00), 2.79 (.00)	48.62* (.07), 55.69* (.08)	1.29 (.00), 7.01* (.01)
Schizoid	10.05* (.02), .38 (.00)	3.36 (.01), 6.64 (.01)	2.18 (.00), 1.64 (.00)
Schizotypal	2.14 (.00), 1.13 (.00)	14.12* (.02), 9.76* (.01)	9.73* (.01), 14.47* (.02)
Antisocial	20.63* (.03), 29.47* (.04)	6.28 (.01), 16.19* (.02)	.43 (.00), .17 (.00)
Borderline	3.62 (.00), 12.51* (.02)	46.67* (.06), 19.07* (.03)	13.10* (.02), 9.20* (.01)
Histrionic	.06 (.00), 1.19 (.00)	2.06 (.00), 17.30* (.03)	6.65 (.01), 9.51* (.01)
Narcissistic	3.88 (.01), 20.06* (.03)	18.21* (.03), 42.89* (.06)	1.03 (.00), 3.28 (.01)
Avoidant	1.34 (.00), 3.01 (.00)	12.74* (.02), .01 (.00)	.73 (.00), 9.95* (.01)
Dependent	.01 (.00), .00 (.00)	9.26* (.01), 38.54* (.05)	.47 (.00), 3.80 (.01)
Obsessive Compulsive	2.55 (.00), 7.76* (.02)	55.61* (.07), 53.82* (.07)	5.71 (.01), 12.42* (.02)

Note. * = $p < .01$; **Bold** = significant in both split-half samples

4. DISCUSSION

The literature on PDs lacks clarity on gender differences in prevalence and presentation due to over-reliance on self-report, which is limited by the individual's insight and willingness to report, and to a tendency to only consider PDs categorically rather than dimensionally, which lacks precision and discounts potentially important subthreshold information. The current investigation attempted to provide clarity to this literature by analyzing PD features both categorically and dimensionally using both self- and informant reported perspectives. Given that sampling biases have been found to distort measurements of PD pathology as they relate to gender (e.g. Morey, Alexander, & Boggs, 2005; Widiger, 1998), the present study used an epidemiological sample that was carefully selected to accurately represent the gender and racial proportions of the greater population it was drawn from. The results of this study aim to inform the body of literature on PDs by providing information on the prevalence of PDs across gender, identifying particular symptoms that may be experienced at different rates and different severities across gender, and by comparing the information provided by self- and informant reports. The implications of these results for the assessment and treatment of PDs are discussed in both research and treatment contexts.

Summary of Findings

See Table 12. Overall, two PDs (borderline and schizotypal) revealed a significant interaction across gender and perspective. These results suggest that finding a gender difference between males and females for severity of borderline PD or schizotypal PD would depend upon whether one considers the self-report or informant report perspective. The direction and magnitude of these differences will be discussed in the respective sections below, along with their broader implications.

Six of the ten PDs (paranoid, schizotypal, borderline, narcissistic, dependent, and obsessive compulsive) had a significant main effect of perspective. These findings suggest that the PD severity a target is experiencing and willing and able to report on may be substantially different than what their informants who know them well would report. This difference tended to be that informants would report higher scores than selves, with some notable exceptions in the opposite direction. Given this trend, and as the broader literature would suggest (e.g. Dowson, 1992), the assessment of PDs may be particularly vulnerable to nondisclosure, underreporting, or outright denial of PD symptoms. Therefore, the results of the present study underscore the importance of considering both self and informant reports.

Antisocial PD was the only PD that had a significant main effect of gender on overall severity. Unlike the gender differences found in borderline PD and schizotypal PD mentioned above and described in their sections below, the gender difference found for antisocial PD was consistent across both self- and informant report. The direction, magnitude, and broader implications for this finding will be described in the antisocial PD section below. Interestingly, despite only one of the PDs showing a significant main effect of gender in terms of overall severity, a hefty proportion of the individual PD criteria did show significant differences across gender. Thus, even the PDs that appear to be broadly gender neutral may have meaningful gender differences in the criteria that make up the disorder. Each of the PD criteria that contain a gender difference will be described below in its respective PD section. The ability to highlight these specific gender differences is borne from considering the PDs both dimensionally and categorically, and is a call for the field to more regularly engage in this practice.

Paranoid PD. In terms of overall severity of paranoid PD, informant reports indicated greater overall severity than did self-reports. In terms of the number of paranoid PD criteria

present, informants again reported significantly more than did selves. Interestingly however, when considering the diagnostic threshold, the results trended toward, though never reached, a significant difference between the number of target individuals reported to meet or exceed the diagnostic threshold according to selves and informants. These findings potentially suggest that the existing prevalence estimates for paranoid PD, which are mainly based on self-report and mainly considered at the level of the diagnostic threshold, may actually be underestimates of the prevalence of paranoid PD symptoms and the severity of paranoid PD related pathology.

Consistent with these findings, existing studies that have also considered PDs dimensionally have similarly found that selves tend to describe themselves as less paranoid than their peer informants indicate (Clifton, Turkheimer, & Oltmanns, 2004). The present study examined each of the specific paranoid PD criteria, and can therefore provide information that speaks to which of the criteria drive this difference between selves and informants. Five of the seven paranoid PD criteria (the individual suspects harm, doubts loyalty, has a reluctance to confide, bears grudges, and is angrily reactive) revealed a significant difference across perspective. The two largest discrepancies between self and informant report were seen in bearing grudges and angry reactivity. That informants seem to be most sensitive to these two criteria is perhaps unsurprising, given that if the individual were to bear grudges or react angrily it would likely be with their informant, the person who has known them well and regularly interacted with them for over thirty years.

The results of the present study suggest that the assessment of paranoid PD in research and practice may benefit from the inclusion of informant reports and dimensional representations of the construct. Without these considerations, a clinician or researcher tasked with assessing paranoia may be at risk for missing easily denied symptoms or discounting rather important

subthreshold information. For example, a clinician leading a group therapy treatment for anxiety may want to screen for paranoid PD to ensure that those with it receive more appropriate treatment and that the group process is not derailed from treating symptoms of anxiety to instead treating symptoms of paranoia. If they consider only self-report and place their cut-score at the diagnostic threshold (as the majority of existing prevalence studies have), they may miss substantial undiagnosed, untreated, and highly severe paranoid PD pathology. The inclusion of informant reports, which seem to offer greater sensitivity, along with specifically examining the severity of each of the paranoid PD criteria that may jeopardize the group process in treatment (e.g. angry reactivity) would afford the clinician greater precision in their measurement.

Schizoid PD. No significant differences were found across gender or perspective for overall schizoid PD severity. There were however three notable differences within the specific criteria. First, both women and their informants indicated that they are more likely to have no interest in sex (Criterion 3) than what men and their informants reported. This finding is consistent with the broader literature on gender differences in sex drive, as evidenced by a large, methodologically diverse, meta-analytic study that concluded “men have a stronger sex drive than women” (Baumeister, Catanese, & Vohs, 2001, p. 263). The authors of this article went on to describe numerous biological and cultural factors that may contribute to this gender difference. This suggests that there is a prescriptive stereotype that men should be highly interested in sex and women either should be to a lesser degree or even potentially should not be. One way this seems to be culturally conditioned is through value based judgments. Research on perceptions of sexuality in men and women has shown that women are often disproportionately rated more negatively than men for similar sexual behaviors and tendencies (Levesque, Vichesky, Simmons, Wicke, & Lipe, 2007). Thus, it is quite possible that the assessment of this

particular schizoid PD symptom is confounded by the existence of this biologically and culturally driven prescriptive stereotype. If a woman endorses this item, no interest in sex, is she responding in a way that is consistent with a true gender difference, consistent with a prescriptive stereotype that is culturally reinforced, or indicative of the schizoid PD related dissociation and disinterest the item is aimed at? Similarly, are men with this schizoid PD symptom more likely to deny this symptom and feign interest in sex in order to fit the prescriptive stereotype? As of yet, it is unclear to what degree actual gender differences and prescriptive stereotypes influence the assessment of this schizoid PD symptom and future research may be necessary. The results of the present study provide context for these future inquiries by indicating that both selves and their informants seem to maintain a consistent perspective on this item, and that the gender difference seems to exist only at the criterion-level rather than in the overall disorder.

Criterion 7, flattened affect, revealed a gender difference in a similar fashion, though in the opposite direction: men and their informants reported significantly more flattened affect than did women and their informants. Research on emotional expression has shown that men have a tendency to report less emotional expression than women, even when there was no significant difference in their averaged momentary ratings of emotion (Barrett, Robin, Pietromonaco, & Eyssell, 1998). This suggests that there may be a gender based prescriptive stereotype that men should be less emotionally expressive than women, and that this prescriptive stereotype has already been shown to affect self-reports. The present study has revealed that informants tend to report on male and female emotional expression similarly to selves. In combination, these studies suggest that this symptom of schizoid PD may require behaviorally based assessments of emotional expression in order to compare actual gender differences.

The gender differences found within the schizoid PD criteria are potentially informative on the differences in presentation in the disorder. Even though there appears to be no gender difference in how likely men and women are to have schizoid PD, the results of the present study indicate that men and women are more likely to present with certain criteria at different severities and frequency. A clinician providing treatment for schizoid PD may find that men are more likely to describe having a flat and restricted affect and that women are more likely to describe having no interest in sex. Awareness of these tendencies may help the clinician contextualize the presenting symptoms within the individual's reporting style and the cultural factors that may be at play.

The third and final difference found in the schizoid PD analyses was that both male and female selves reported a higher tendency to choose solidarity than did their informants. This makes sense, in that the choice toward solidarity is likely one made internally and then acted upon without others involved. Although the informants may at times notice their absence, it would seem that selves are more aware of their own choice toward solidarity while informants may not always see the choice or may make other interpretations for the solidarity (e.g. it's not that they chose solidarity, I did). This finding would suggest that self-reports are more likely to detect the person's reasoning behind and motivations for choosing solidarity, and should continue to be relied upon in the assessment of schizoid PD.

Schizotypal PD. The results regarding schizotypal PD revealed a significant interaction across gender and perspective, in that schizotypal PD severity across gender differed based on whether one considered the self- or informant report perspective. Specifically, men relative to women more strongly endorsed schizotypal PD features. However, informants indicated no significant differences across target gender. This finding potentially suggests that the internal

experiences and expectations associated with schizotypal PD are different than the externally observed experiences and expectations. Internally, men and women appear to have either a true gender difference in the severity and frequency they experience schizotypal PD symptoms in that men describe more distress in both categories, or men and women have a different ability to report on their similar symptoms. Their informants on the other hand, seem to observe schizotypal PD in a rather consistent way regardless of the target's gender. This additional perspective may prove useful developing a more comprehensive understanding of schizotypal PD. Given that schizotypal PD is one of the lesser studied and more poorly understood PDs, this is particularly important.

The dimensional analyses included in this study allow us to examine which criteria were primarily involved in driving this interaction. Unusual experiences, paranoid ideation, and lacks close friends all had significant main effects. Men and their informants reported that they tend to lack close friends to a greater degree than women and their informants reported. This finding is consistent with another large sample of older adults (age range: 50-95) that revealed women tend to have larger social support networks (Antonucci & Akiyama, 1987). Notably, this study also found that the quality of social support was far more related to well-being than the quantity. Given the assumption of the pathological nature of this item as it relates to schizotypal PD, it is likely important to consider both the quantity and quality of social support a person has in order determine the degree of distress involved in a person's or an informant's endorsement of this item.

The findings for the paranoid ideation schizotypal PD criterion mirror the findings for paranoid PD. In both instances, informants were more sensitive to and more able to readily report on paranoia. This consistency suggests that paranoia as a broader construct is vulnerable

to underreporting, denial of symptoms, or lack of insight when considering self-report. Given that paranoia inherently includes a distortion of the person's perspective, this limitation seems to be most likely driven by the person's insight and awareness of their own symptoms. Informants however, presumably are able to maintain a more balanced and reality-based perspective, and seem to be able to offer useful information in the assessment of paranoid PD, schizotypal PD, and paranoia more broadly considered.

Antisocial PD. A significant main effect was found for antisocial PD such that males and their informants reported greater antisocial PD severity than did females and their informants. This gender difference is consistent with results of other epidemiological samples (e.g. Trull et al., 2010). In addition to providing support through replication, the present study uniquely offers two important contributions to the literature on antisocial PD: dimensional assessment of the disorder and each of the specific criteria along with informant reported information.

Dimensional assessment of each of the specific criteria revealed which symptoms of antisocial PD drove the observed gender difference between males and females. Males and their informants reported higher rates of deceitfulness (Criterion 2), recklessness (Criterion 5), and lack of remorse (Criterion 7) than did women. These findings indicate these three criteria are particularly relevant to gender, and may provide further understanding of antisocial PD presentation. One more note with regard to gender in the current sample is that law-breaking behavior (Criterion 1) was significantly different in one sample and trended toward significance in the other. Therefore, this result was not considered significant. Given that the incidence of law-breaking behavior was quite low in this sample, it is quite possible that forensic samples, which tend to be disproportionately male and far more likely to include law-breaking behaviors, would show a significant difference. How substantially different epidemiological community

samples are from forensic samples is an open empirical question, particularly with regard to law-breaking behaviors.

Differences between self- and informant reported perspectives were also found for specific antisocial PD criteria. Informants for both men and women reported significantly more irritability/aggression (Criterion 4) and lack of remorse (Criterion 7) than selves admitted to. This makes good sense in that informants who have known the target well for a long time are likely targets for their irritability/aggression and likely to readily observe when the target does not show remorse. These results suggest that these are symptoms of antisocial PD that are particularly vulnerable to underreporting in self-reports. Informant reports may be particularly useful in assessing these criteria. For example, a forensic psychologist conducting an assessment of antisocial PD in a prison setting or for court proceedings may be highly interested in assessing the individual's aggression and lack of remorse to aid in risk assessment and legal decision-making. Including informant reports, which have been shown in this study to be more sensitive to these criteria, may limit the potential for false-negatives brought on by denial or minimization of symptoms that can exist in self-report. Given the high consequence nature of such a situation, the psychologist should also guard against potential overreporting from certain informants by considering multiple informants and gathering corroborating information from multiple sources (e.g. criminal record, behaviors during incarceration).

Borderline PD. The relative level of borderline PD severity across gender differed based on whether one considered the self-report or informant report perspective. Specifically, men relative to women more strongly endorsed borderline PD features. However, informants indicated no significant differences across target gender. The dimensional, criterion-level, analyses conducted in this study allow for examination of which criteria are primarily

responsible for driving this interaction. First, men reported that they are making more distressed and potentially manipulative efforts to avoid abandonment (Criterion 1) than women, but their informants reported no gender difference. Analyzing how BPD symptoms function across perspective and gender in this way opens new avenues for inquiry, specifically by considering findings from studies that have not considered both variables together. For example, attachment, in as much as it is captured by this item “avoids abandonment,” differed across perspective and gender. This trend raises empirical questions about whether findings from well-conducted attachment studies (e.g., Choi-Kain, Fitzmaurice, Zanarini, Laverdière, & Gunderson, 2009) or other studies that rely largely on self-reported information collapsed across gender would differ if additional perspectives and gender were considered.

A second gender difference found for borderline PD criteria was in the impulsivity symptom (Criterion 4). Here again, men reported having more impulsivity than did women. This time however, informants and self-reports were in agreement and both suggested impulsivity was more common in males. This finding is consistent with the broader borderline PD literature (Sansone & Sansone, 2011). Interestingly, the impulsivity item in antisocial PD did not reveal a gender difference. Impulsivity as a construct is similar across both PDs, but has a specific bend towards particular symptomology in each. Impulsivity as it relates to borderline PD involves a degree of self-harm, whereas impulsivity as it relates to antisocial PD more specifically emphasizes a failure to plan ahead. The present study then suggests that impulsivity may be a gender neutral symptom in antisocial PD, and therefore gender may have little effect on a person’s tendency to plan ahead properly, whereas impulsivity is affected by gender according to both selves and informants in borderline PD. Overall, these findings suggest that tendencies toward impulsive self-harm are more common in men. This is corroborated by evidence from a

recent cross-national study that found serious suicidal attempts were rated significantly more frequently in males than females (Freeman et al., 2017).

The analyses of borderline PD also revealed significant main effects across perspective. Unstable relationships (Criterion 2), affect instability (Criterion 6), chronic emptiness (Criterion 7), intense anger (Criterion 8), and transient paranoia (Criterion 9) were all rated as significantly higher by informants relative to selves. Individuals with borderline PD pathology related to unstable relationships and affective instability have actually already been shown in previous research to be compromised in their ability to provide accurate and consistent self-reported information regarding these symptoms (Thomas, 1996). The results of the present study reveal that informants may be particularly useful in assessing these symptoms by providing a more stable and less ego-involved perspective. Notably, anger and paranoia in borderline PD were once again underreported by selves compared to their informants, just as they were in paranoid PD and schizotypal PD. This consistent finding emphasizes once more that PD symptoms related to paranoia and anger may be particularly vulnerable to inaccurate or distorted reporting, and should therefore be assessed across multiple perspectives.

Not all of the borderline PD with significant effects across perspective were in the same direction however. Selves reported greater distress related to identity disturbance (Criterion 3) than did informants. This observed difference across different sources of assessment dovetails nicely with findings from Hopwood and colleagues (2008), who compared self-reported and interview assessments of borderline PD and also found that in certain instances the two perspectives provided different information about borderline PD features. In particular, self-report provided greater predictive validity than clinical interviews regarding experiential symptoms, such as identity disturbance. In the present study, self-reported identity disturbance

was more strongly endorsed than was informant-reported identity disturbance. This finding supports the notion that the assessment of this particular feature is significantly influenced by perspective, now having been shown to be different in both a clinical and an epidemiological sample, and across self-report, interview, and informant-report perspectives

Histrionic PD. Analyses of the histrionic PD dimension did not reveal a significant interaction across gender and perspective. This finding calls into question previous research on histrionic PD as it relates to gender, that has traditionally considered histrionic PD to be more common in females. The present study, along with existing studies (Nestadt et al., 1990), have indicated that males and females are equally affected. These results call for future research that examines potentially gendered perceptions and expectations of selves, informants, and clinicians.

Although there was no overall interaction, there were two notable statistically significant main effects. Men and their informants reported significantly more flirtatiousness than did females and their informants. Recent research has shown that it is important to consider what specific behaviors are being assessed in flirtatiousness. McCormick and Jones (2015) examined gender differences in flirting and found that women were more likely to engage in positive facial expressions, brief touching, and grooming gestures whereas men were more likely to engage in intimate touching. This may suggest that flirtatiousness as it relates to histrionic PD (as measured by this item of the MAPP) is most likely capturing intimate touching aspects of flirtatiousness.

A significant main effect was also found for perspective for the histrionic PD criterion self-dramatization, in that informants reported a higher occurrence of self-dramatization than targets reported having themselves. This finding potentially indicates that selves have a diminished capacity to recognize or accurately report on when they are being overly dramatic. Given the egosyntonic nature of this symptom, it is perhaps unsurprising that selves would

underreport. The self would be more likely to view their overly dramatic behaviors as accurate and appropriate for the situation according to their perspective. Given the results of this study and that informants who know the person well would be likely to be part of the audience for these self-dramatizing behaviors, informant reported information could prove to be particularly useful in assessing self-dramatization in histrionic PD.

Narcissistic PD. Analyses of narcissistic PD did not reveal a significant interaction across gender and perspective. There were however, multiple significant main effects across gender and perspective individually. Most notably, informants reported significantly more narcissistic PD pathology than did selves at the level of total severity, criteria present, and at the diagnostic threshold. The criterion level analyses revealed that grandiosity (Criterion 1), beliefs of uniqueness (Criterion 3), entitlement (Criterion 5), exploitative tendencies (Criterion 6), and enviousness (Criterion 8) were all reported as higher by informants relative to selves. Narcissism and the symptoms it is made up of inherently involve a degree of distorted self-perception, and this distorted self-perception has been shown to compromise self-reports. Past research has shown that symptoms of narcissistic PD, such as grandiosity, often can prevent individuals from willingly and accurately providing self-reported information (e.g. Raskin, Novacek, & Hogan, 1991). Therefore, the findings of the present study call into question the validity of prevalence studies that have relied solely on self-reported information in assessing narcissistic PD, as they are quite likely underestimates of the true prevalence.

There were also notable differences across gender in narcissistic PD. Both men and their informants indicated that men are more likely than women to display arrogant behaviors (Criterion 9) and lack empathy (Criterion 7). This gender difference related to empathy has also been shown in previous research (e.g. Gault & Sabini, 2000; Lennon & Eisenberg, 1987;

Macaskill et al., 2002), and has been shown to be driven by motivation rather than ability (Klein & Hodges, 2001). This evidence suggests that there is potentially a prescriptive stereotype that women should be empathic and that men either should be to a lesser degree or should not be, and that the rewards and punishments associated with adhering or not adhering to the stereotype are highly motivating. For example, if a man displays empathy and is ridiculed as “soft” by his peers, he is highly unlikely to feel motivated to continue displaying empathy and may even become motivated to portray himself as lacking in empathy. Given the importance of empathy in successful interpersonal relationships, the results of this study highlight the need for clinicians to divert special attention to growing their client’s capacity for and practice of empathy, particularly in men that may be culturally motivated or pressured to maintain a lack of empathy.

Avoidant PD. Avoidant PD was remarkably consistent across gender and perspective. Only one significant difference emerged. These findings suggest that avoidant PD seems to be rather consistently measured across self- and informant reports, especially relative to other PDs. The one exception was in feelings of inadequacy (Criterion 5), in that targets rated themselves as more distressed than did their informants. Given that feelings of inadequacy are primarily experienced internally, and that an avoidant individual may be particularly unlikely to share these feelings, these findings potentially suggest that informants may lack access to and therefore be unable to detect feelings of inadequacy that selves are internally experiencing.

Dependent PD. There was no significant interaction across gender and perspective for dependent PD. There was however a significant main effect of perspective, in that informants reported significantly more dependent PD pathology and more criteria present than did selves. This finding was driven primarily by informants indicating greater severity in decision making problems (Criterion 1), diffusion of responsibility (Criterion 2), requiring nurturance (Criterion

5), feeling helpless alone (Criterion 6), and fear of abandonment (Criterion 8). This finding across perspective makes some sense, since if the individual were to diffuse responsibility or require nurturance, their informant who knows them well would likely be one of the people they regularly rely on. Therefore, assessment of dependent PD, may require the use of informant reports to understand the full extent of the person's dependence on others.

There were also two significant main effects across gender for two dependent PD criteria. Men and their informants reported that they more strongly require relationships (Criterion 7). Women and their informants indicated that they have greater fears of abandonment (Criterion 8). The inconsistency in the direction of these directions is interesting, especially in light of the borderline PD gender differences in efforts to avoid abandonment. Men reported a stronger need for relationships, and making more efforts to avoid abandonment, but curiously reported less fear of actual abandonment, which would be a plausible motivator for these trends. A large meta-analytic review found that women are more likely than men to report and experience greater fear, and provided supporting evidence from a broad range of relevant etiological factors including gender role socialization (McLean & Anderson, 2009). Informants also indicated that their male targets were experiencing more fear of abandonment than they themselves indicated. All findings in the present study and broader literature taken together, this gender difference in abandonment in dependent PD and borderline PD may be best explained by men not wanting to admit to their fear. Thus, when assessing dependent PD in men it is likely particularly important to consider informant reports and clinical interviews in order to detect fear of abandonment that they may not be readily able or willing to report on.

Obsessive Compulsive PD. One immediately apparent finding related to obsessive compulsive PD is that both selves and informants reported notably higher levels of severity for

this PD relative to the others. This is perhaps driven by cultural values that place importance on and normalize obsessive compulsive tendencies. For example, attention to detail and productivity are positive and highly valued qualities that closely resemble their more pathological versions in preoccupation with detail (Criterion 1), perfectionism (Criterion 2), and excessive productivity (Criterion 3). It is unclear how well both selves and informants can distinguish between what is normal and healthy vs. abnormal and disordered, and this could potentially have led to overreporting in symptoms of obsessive compulsive PD. Therefore, global differences in prevalence and severity in obsessive compulsive PD relative to other PDs should at the very least be interpreted with some caution.

Informants reported significantly more overall pathology, a greater number of criteria endorsed, and that more individuals met criteria for a diagnosis of obsessive compulsive PD than did selves. This finding was primarily driven by differences in which informants reported greater preoccupation with details (Criterion 1), inflexibility (Criterion 4), hoarding of useless objects (Criterion 5), and stubbornness (Criterion 8). This finding suggests that even in obsessive compulsive PD, which may lack clarity between normal and pathological in such a way that overreporting may be somewhat incentivized, informants still provide more sensitivity and may still have ability and willingness to report on symptoms selves may not. Quite notably, the largest of these differences was in inflexibility. This makes some sense, in that from the perspective of the self, their inflexibility would be egosyntonic (e.g. “I’m right, so I won’t change my mind”) and they would therefore be unlikely to view such inflexibility as problematic or pathological. Informants on the other hand, may be less ego invested and able to more clearly see when the person’s inability to change or adapt causes them problems.

There was also one gender difference, in that both men and their informants indicated that men are more likely to be stubborn (Criterion 8). This finding may be particularly relevant to clinicians treating individuals with obsessive compulsive PD. Stubbornness is likely to interfere with treatment gains, limit the client's willingness or ability to change, and could even potentially create points of conflict between the client and therapist. The results of the present study suggest that all clinicians should be aware of and attend to this potential stubbornness in their treatment, and that it may be significantly more likely to occur in their male clients. This awareness could allow the clinician to more appropriately treatment plan as well as more quickly recognize and react to potential stalls or ruptures brought on by stubbornness. An interesting area of future research could also examine the best ways to address stubbornness in treatment as well as what potential gender effects of the client or therapist may exist in this process.

Clinical Implications

Clinical implications specific to each personality disorder have been discussed in the corresponding sections above. More broadly speaking, the results of the study offer multiple opportunities for clinicians to improve their practice. First, the inclusion of informant reports offer clinicians increased ability to detect PD symptoms. This could be useful in settings where screening for PD pathology may be particularly important. It is not uncommon for clinicians to screen for PD pathology in group therapy settings where an individual with a PD would be better suited to individual therapy. When these screens are conducted, clinicians typically use only self-report. However, as the results of the present study indicate, the inclusion of informant reports would greatly increase the clinician's ability to detect PD symptoms and effectively screen. Along with screening, this increased ability to detect PD symptoms would be similarly useful for

clinicians providing individual therapy or selecting individuals for group therapy (e.g. a clinician assessing borderline PD symptoms for a Dialectical Behavior Therapy group).

Second, the present study demonstrates the importance of assessing PDs dimensionally. Only observing PDs categorically could potentially cause a clinician to miss or disregard important subthreshold symptoms. If a patient presents with subthreshold symptoms of narcissistic PD, those symptoms are more than likely going to influence treatment. The present study demonstrates how a clinician could move their assessments and case formulation toward dimensional assessment.

Finally, the present study offers important information on clinical base rates of PDs using a large epidemiological sample. Understanding how common each PD and certain PD symptoms are will allow a clinician to more accurately compare their client with the broader population. Importantly, this study provides this information across gender to allow the clinician to compare to norms that are gender appropriate for their client, as well as provides this information dimensionally for each symptom rather than just stating how common the diagnosis is. Additionally, these data are particularly well-equipped to examine PD pathology in older adults, and may offer unique understanding for clinicians engaged with this population.

Limitations and Future Directions

There are several limitations of this study. First and foremost, the PDs did not demonstrate sufficient unidimensionality for the proposed IRT analyses. This unfortunate result prohibits this study from assessing measurement bias as was initially proposed. Had these analyses been conducted, it could have identified which significant findings are due to measurement bias and which findings reflect actual differences in gender or perspective. As it stands, the study reliably identifies these differences, which does both add to the literature and

offer practical applications as described above, but it does not specifically examine measurement bias. The use of other PD measures that involve a larger number of items or that were created within an IRT framework, could potentially help future studies achieve sufficient unidimensionality. It should also be considered however that PDs are in actuality multidimensional, as previous research has suggested (e.g. Chmielewski & Watson, 2008), and therefore may be constructs that are simply not well suited to IRT analyses. An interesting related endeavor could be to examine the unidimensionality of PDs using the trait-based alternative model in Section III of the DSM-5, to see if this more recent conceptualization of PDs can be more readily adapted to IRT analyses, and in turn shed light on the issue of potential measurement bias that may exist in PDs.

The fact that participants selected their own informant, whom they reported knowing for longer than 30 years on average, is potentially both a strength and a weakness of the current study. It could be a strength, in that the average duration of these relationships assures that the informants most likely knew the participants very well and could base their responses on years of evidence. On the other hand, the fact that the self-selected informants had known the targets for so long could be a limitation in that they may have had biases that affected their reporting (Leising, Erbs, & Fritz, 2010; Oltmanns & Turkheimer, 2006). The extent to which the number of years acquainted affects self- and informant report ratings is an empirical question that could be examined in future studies.

Another potential limitation involves the nature of the sample, which was limited to individuals aged 55 to 64 years. It is not clear whether these results would generalize to younger samples. Although the generalizability to younger samples remains unknown, results highlight the importance of using multiple assessment perspectives and considering gender differences

when assessing PD features in adults approaching later life, which is an important time to assess PD pathology (Oltmanns & Balsis, 2011). At the same time, there is a trend suggesting that as age increases, the likelihood that a person endorses PD symptoms decreases (Paris & Zweig-Frank, 2001), and so the findings here might underestimate the endorsement found in younger populations. To complement these findings, future studies should seek to replicate the methods used in this study within other sample types, particularly clinical samples and younger populations

Further, to have an epidemiologically accurate sample of a medium-sized U.S. city for the specified age range is a strong point of the study. However, this does also invite some potential limitations. First, it is possible that these results from a mainly urban sample do not generalize well to rural areas. Second, the sample is only drawn from the U.S., and it is therefore unclear how well the results will generalize to the global population. McCrae & Terracciano (2005) conducted research using self- and informant reports of normal personality and found that the American report structure was clearly replicated in most cultures and at least recognizable in all. This may suggest that the results of the present study, particularly the differences across perspective, can safely be considered generalizable. However, the authors also noted that the gender differences they found tended to be largest in western cultures, and therefore gender differences in the present study should be generalized with some caution.

Yet another limitation of this study is in how gender was defined. The author has made it abundantly clear that dimensional assessment of PDs is important, beneficial, and preferred. Yet, gender in the present study was only measured categorically, by participants self-identifying as either male or female. This creates several problems. First, it is not clear whether participants responded based on their sex (determined by biology) or their gender (determined by identity).

Although these are matched in a vast majority of the population, the present study cannot determine if and how the gender differences found apply to say transsexual individuals, or others not well represented by this binary choice. Second, gender is only measured categorically, in that participants selected that they were male or female, rather than dimensionally which could offer useful information. If the individuals could have indicated the degree to which they feel both masculine and feminine, the present study could have potentially shed light on how gender as a construct relates to PD pathology rather than gender as simply a group standing. This more granular approach could offer insight into how gender identification in males or females (e.g. a person who would score high on both the masculine and feminine dimension) could relate to different expression of PD pathology. One final note related to measurement of gender is that the present study did not collect any data on the participant's own gender schemas, stereotype awareness, or gender ideology. Future studies that measure gender in these ways and collect this information could provide more clear understanding of the gender differences in PDs.

Conclusions

Despite these limitations, the study provides meaningful information about gender differences in PDs, at both the diagnostic and criterion levels, with a well-selected epidemiological sample assessed using two important and contrasting perspectives. Differences in perspective generally indicated that informant reports tend to be more sensitive to PD pathology, and that they may be more readily able and willing to report on symptoms that selves lack the insight or willingness to report on. Thus, informant reports may be useful for researchers aiming to develop a more full understanding of PD pathology. Similarly, clinicians may make use of this added specificity in assessment, screening, and treatment contexts. Gender differences were found for schizotypal PD, borderline PD, and antisocial PD, along with information on

which criteria are specifically involved in driving these gender differences and how they relate to differences in the overall presentation of the PD in men and women. The dimensional and criterion-level assessments within the study also revealed that even PDs that appear to be broadly gender neutral can contain meaningful gender differences in certain criteria. These results can be directly used by clinicians to generate empirically driven expectations for their clients and treatment plan accordingly. Future research efforts to quantify and understand the amount of PD severity across gender would ideally incorporate multiple techniques and limit selection bias, thus increasing the amount of relevant information gathered, and delineate factors that might lead to different estimates of gender distributions. The addition of this and similarly structured studies to the current body of literature can uncover information that has historically been understudied, discover and define trends underlying past conclusions, and generate a substantial body of data that is well suited to generalize to the population as a whole.

REFERENCES

- Achenbach, T. M., Krukowski, R. A., Dumenci, L., & Ivanova, M. Y. (2005). Assessment of adult psychopathology: meta-analyses and implications of cross-informant correlations. *Psychological Bulletin, 131*(3), 361-382.
- Akhtar, S., Byrne, J. P., & Doghramji, K. (1986). The demographic profile of borderline personality disorder. *The Journal of Clinical Psychiatry, 47*(4), 196-198.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: American Psychiatric Publishing.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Antonucci, T. C., & Akiyama, H. (1987). An examination of sex differences in social support among older men and women. *Sex Roles, 17*(11-12), 737-749.
- Baker, F. B. (2001). *The Basics of Item Response Theory*. Boston, MA; ERIC Clearinghouse on Assessment and Evaluation.
- Balsis, S., Gleason, M. E., Woods, C. M., & Oltmanns, T. F. (2007). An item response theory analysis of DSM-IV personality disorder criteria across younger and older age groups. *Psychology and Aging, 22*(1), 171-185.
- Balsis, S., Loehle-Conger, E., Busch, A. J., Ungredda, T., & Oltmanns, T. F. (2017). Self and Informant Report Across the Borderline Personality Disorder Spectrum. *Personality Disorders: Theory, Research, and Treatment, 9*(5), 429-436.
- Balsis, S., Lowmaster, S., Cooper, L. D., & Bengue, J. F. (2011). Personality disorder diagnostic thresholds correspond to different levels of latent pathology. *Journal of Personality Disorders, 25*(1), 115-127.

- Barrett, L. F., Robin, L., Pietromonaco, P. R., & Eyssell, K. M. (1998). Are women the “more emotional” sex? Evidence from emotional experiences in social context. *Cognition & Emotion, 12*(4), 555-578.
- Barzega, G., Maina, G., Venturello, S., & Bogetto, F. (2001). Gender-related distribution of personality disorders in a sample of patients with panic disorder. *European Psychiatry, 16*(3), 173-179.
- Bateman, A. W., & Fonagy, P. (2000). Effectiveness of psychotherapeutic treatment of personality disorder. *The British Journal of Psychiatry, 177*(2), 138-143.
- Baumeister, R. F., Catanese, K. R., & Vohs, K. D. (2001). Is there a gender difference in strength of sex drive? Theoretical views, conceptual distinctions, and a review of relevant evidence. *Personality and Social Psychology Review, 5*(3), 242-273.
- Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review, 88*(4), 354-364.
- Ben-Porath, Y. S. (2012). *Interpreting the MMPI-2-RF*. Minneapolis, MN: University of Minnesota Press.
- Bernstein, D. P., Cohen, P., Velez, C. N., Schwab-Stone, M., Siever, L. J., & Shinsato, L. (1993). Prevalence and stability of the DSM-III-R personality disorders in a community-based survey of adolescents. *American Journal of Psychiatry, 150*, 1237-1237.
- Birnbaum, A. (1968). Some latent trait models and their use in inferring an examinee's ability. *Statistical Theories of Mental Test Scores, 17-20*, 395-479.
- Bjorklund, P. (2006). No man's land: Gender bias and social constructivism in the diagnosis of borderline personality disorder. *Issues in Mental Health Nursing, 27*(1), 3-23.

- Blashfield, R. K., & Intoccia, V. (2000). Growth of the literature on the topic of personality disorders. *American Journal of Psychiatry*, *157*(3), 472-473.
- Bucholz, K. K., Nurnberger Jr, J. I., Kramer, J. R., Hesselbrock, V. M., Schuckit, M. A., & Bierut, L. J. (2006). Comparison of psychiatric diagnoses from interview reports with those from best-estimate procedures. *Journal of Studies on Alcohol*, *67*(1), 157-168.
- Busch, A. J., Balsis, S., Morey, L. C., & Oltmanns, T. F. (2016). Gender differences in borderline personality disorder features in an epidemiological sample of adults age 55–64: Self versus informant report. *Journal of Personality Disorders*, *30*(3), 419-432.
- Busch, A. J., Morey, L. C., & Hopwood, C. J. (2017). Exploring the assessment of the DSM–5 alternative model for personality disorders with the personality assessment inventory. *Journal of Personality Assessment*, *99*(2), 211-218.
- Caplan, P. J. (1995). *They Say You're Crazy: How the World's Most Powerful Psychiatrists Decide Who's Normal*. Addison-Wesley/Addison Wesley Longman.
- Carlson, E. N., & Oltmanns, T. F. (2015). The role of metaperception in personality disorders: Do people with personality problems know how others experience their personality? *Journal of Personality Disorders*, *29*(4), 449-467.
- Carlson, E. N., Vazire, S., & Oltmanns, T. F. (2013). Self-other knowledge asymmetries in personality pathology. *Journal of Personality*, *81*(2), 155-170.
- Carter, J. D., Clin, D., Joyce, P. R., Mulder, R. T., Sullivan, P. F., & Luty, S. E. (1999). Gender differences in the frequency of personality disorders in depressed outpatients. *Journal of Personality Disorders*, *13*(1), 67-74.
- Cheavens, J. S., Rosenthal, M. Z., Daughters, S. B., Nowak, J., Kosson, D., Lynch, T. R., & Lejuez, C. W. (2005). An analogue investigation of the relationships among perceived

- parental criticism, negative affect, and borderline personality disorder features: The role of thought suppression. *Behaviour Research and Therapy*, 43(2), 257-268.
- Clark, L. A. (2007). Assessment and diagnosis of personality disorder: Perennial issues and an emerging reconceptualization. *Annual Review of Psychology*, 58, 227-257.
- Clifton, A., Turkheimer, E., & Oltmanns, T. F. (2004). Contrasting perspectives on personality problems: Descriptions from the self and others. *Personality and Individual Differences*, 36(7), 1499-1514.
- Clifton, A., Turkheimer, E., & Oltmanns, T. F. (2005). Self-and peer perspectives on pathological personality traits and interpersonal problems. *Psychological Assessment*, 17(2), 123-131.
- Coid, J., Yang, M., Tyrer, P., Roberts, A., & Ullrich, S. (2006). Prevalence and correlates of personality disorder in Great Britain. *The British Journal of Psychiatry*, 188(5), 423-431.
- Cooper, L. D., & Balsis, S. (2009). When less is more: How fewer diagnostic criteria can indicate greater severity. *Psychological Assessment*, 21(3), 285-293.
- Cooper, L. D., Balsis, S., & Oltmanns, T. F. (2012). Self-and informant-reported perspectives on symptoms of narcissistic personality disorder. *Personality Disorders: Theory, Research, and Treatment*, 3(2), 140-154.
- Cooper, L. D., Balsis, S., & Oltmanns, T. F. (2014). Aging: empirical contribution: a longitudinal analysis of personality disorder dimensions and personality traits in a community sample of older adults: perspectives from selves and informants. *Journal of Personality Disorders*, 28(1), 151-165.

- Cooper, L. D., Balsis, S., & Zimmerman, M. (2010). Challenges associated with a polythetic diagnostic system: Criteria combinations in the personality disorders. *Journal of Abnormal Psychology, 119*(4), 886-895.
- Corbitt, E. M., & Widiger, T. A. (1995). Sex differences among the personality disorders: An exploration of the data. *Clinical Psychology: Science and Practice, 2*(3), 225-238.
- Costa, P. T., & McCrae, R. R. (1992). *NEO PI-R Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Crocq, M. A. (2013). Milestones in the history of personality disorders. *Dialogues in Clinical Neuroscience, 15*(2), 147-153.
- Dhawan, N., Kunik, M. E., Oldham, J., & Coverdale, J. (2010). Prevalence and treatment of narcissistic personality disorder in the community: a systematic review. *Comprehensive Psychiatry, 51*(4), 333-339.
- Disney, K. L., Weinstein, Y., & Oltmanns, T. F. (2012). Personality disorder symptoms are differentially related to divorce frequency. *Journal of Family Psychology, 26*(6), 959-965.
- Dowson, J. H. (1992). Assessment of DSM–III–R Personality Disorders by Self-Report Questionnaire: the Role of Informants and a Screening Test for Co-morbid Personality Disorders (STCPD). *The British Journal of Psychiatry, 161*(3), 344-352.
- Drake, R. E., & Vaillant, G. E. (1985). A validity study of Axis II of DSM-III. *The American Journal of Psychiatry, 142*(5), 553-558.
- Eagly, A. H., & Mladinic, A. (1989). Gender stereotypes and attitudes toward women and men. *Personality and Social Psychology Bulletin, 15*(4), 543-558.

- Feingold, A. (1994). Gender differences in personality: A meta-analysis. *Psychological Bulletin*, *116*(3), 429-456.
- Fiedler, E. R., Oltmanns, T. F., & Turkheimer, E. (2004). Traits associated with personality disorders and adjustment to military life: Predictive validity of self and peer reports. *Military Medicine*, *169*(3), 207-211.
- Frances, A. (1980). The DSM-III personality disorders section: A commentary. *The American Journal of Psychiatry*, *137*(9), 1050-1054.
- Frances, A. (1982). Categorical and dimensional systems of personality diagnosis: A comparison. *Comprehensive Psychiatry*, *23*(6), 516-527.
- Freeman, A., Mergl, R., Kohls, E., Székely, A., Gusmao, R., Arensman, E., & Rummel-Kluge, C. (2017). A cross-national study on gender differences in suicide intent. *BMC Psychiatry*, *17*(1), 234-245.
- Funder, D. C., & Colvin, C. R. (1988). Friends and strangers: Acquaintanceship, agreement, and the accuracy of personality judgment. *Journal of Personality and Social Psychology*, *55*, 149-158.
- Funder, D. C., & Dobroth, K. M. (1987). Differences between traits: Properties associated with interjudge agreement. *Journal of Personality and Social Psychology*, *52*, 409-418.
- Garb, H. N. (1997). Race bias, social class bias, and gender bias in clinical judgment. *Clinical Psychology: Science and Practice*, *4*(2), 99-120.
- Gault, B. A., & Sabini, J. (2000). The roles of empathy, anger, and gender in predicting attitudes toward punitive, reparative, and preventative public policies. *Cognition & Emotion*, *14*(4), 495-520.

- Goldstein, R. B., Compton, W. M., Pulay, A. J., Ruan, W. J., Pickering, R. P., Stinson, F. S., & Grant, B. F. (2007). Antisocial behavioral syndromes and DSM-IV drug use disorders in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Drug & Alcohol Dependence, 90*(2), 145-158.
- Golomb, M., Fava, M., Abraham, M., & Rosenbaum, J. F. (1995). Gender differences in personality disorders. *The American Journal of Psychiatry, 152*(4), 579-582.
- Grant, B. F., Chou, S. P., Goldstein, R. B., Huang, B., Stinson, F. S., Saha, T. D., ... & Ruan, W. J. (2008). Prevalence, correlates, disability, and comorbidity of DSM-IV borderline personality disorder: results from the Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions. *The Journal of Clinical Psychiatry, 69*(4), 533-541.
- Grant, B. F., Hasin, D. S., Stinson, F. S., Dawson, D. A., Chou, S. P., Ruan, W. J., & Huang, B. (2005). Co-occurrence of 12-month mood and anxiety disorders and personality disorders in the US: results from the national epidemiologic survey on alcohol and related conditions. *Journal of Psychiatric Research, 39*(1), 1-9.
- Grant, B. F., Stinson, F. S., Dawson, D. A., Chou, S. P., Dufour, M. C., Compton, W., ... & Kaplan, K. (2004). Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: Results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry, 61*(8), 807-816.
- Gratz, K. L., Rosenthal, M. Z., Tull, M. T., Lejuez, C. W., & Gunderson, J. G. (2006). An experimental investigation of emotion dysregulation in borderline personality disorder. *Journal of Abnormal Psychology, 115*(4), 850-855.
- Greene, R. L. (2000). *The MMPI-2: An Interpretive Manual*. New York, N.Y; Grune & Stratton.

- Grilo, C. M., McGlashan, T. H., Quinlan, D. M., Walker, M. L., Greenfeld, D., & Edell, W. S. (1998). Frequency of personality disorders in two age cohorts of psychiatric inpatients. *American Journal of Psychiatry*, *155*(1), 140-142.
- Gunderson, J. G., & Links, P. S. (2008). The borderline diagnosis. *Borderline Personality Disorder. A Clinical Guide*, 1-28.
- Gunderson, J. G., Stout, R. L., McGlashan, T. H., Shea, M. T., Morey, L. C., Grilo, C. M., & Ansell, E. (2011). Ten-year course of borderline personality disorder: psychopathology and function from the Collaborative Longitudinal Personality Disorders study. *Archives of General Psychiatry*, *68*(8), 827-837.
- Hambleton, R. K., Swaminathan, H., & Rogers, H. J. (1991). *Fundamentals of Item Response Theory* (Vol. 2). Sage.
- Hamburger, M. E., Lilienfeld, S. O., & Hogben, M. (1996). Psychopathy, gender, and gender roles: Implications for antisocial and histrionic personality disorders. *Journal of Personality Disorders*, *10*(1), 41-55.
- Hartung, C. M., & Widiger, T. A. (1998). Gender differences in the diagnosis of mental disorders: Conclusions and controversies of the DSM-IV. *Psychological Bulletin*, *123*(3), 260-278.
- Haslam, N., Holland, E., & Kuppens, P. (2012). Categories versus dimensions in personality and psychopathology: a quantitative review of taxometric research. *Psychological Medicine*, *42*(5), 903-920.
- Hays, R. D., Prince-Embury, S., & Chen, H. (1998). *RAND-36 Health Status Inventory*. San Antonio, TX: Psychological Corporation.

- Henry, K. A., & Cohen, C. I. (1983). The role of labeling processes in diagnosing borderline personality disorder. *The American Journal of Psychiatry*, *140*(11), 1527-1529.
- Herbert, J. D., Hope, D. A., & Bellack, A. S. (1992). Validity of the distinction between generalized social phobia and avoidant personality disorder. *Journal of Abnormal Psychology*, *101*(2), 332-339.
- Heumann, K. A., & Morey, L. C. (1990). Reliability of categorical and dimensional judgements of personality disorder. *The American Journal of Psychiatry*, *147*(4), 498-500.
- Hopwood, C. J., Morey, L. C., Edelen, M. O., Shea, M. T., Grilo, C. M., Sanislow, C. A., . . . Skodol, A. E. (2008). A comparison of interview and self-report methods for the assessment of borderline personality disorder criteria. *Psychological Assessment*, *20*(1), 81-85.
- Howells, K. (1998). *Cognitive Behavioural Interventions for Anger, Aggression and Violence*. New York, NY, US: John Wiley & Sons Ltd.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55.
- Hylar, S. E., Rieder, R. O., Williams, J. B., Spitzer, R. L., Lyons, M., & Hendler, J. (1989). A comparison of clinical and self-report diagnoses of DSM-III personality disorders in 552 patients. *Comprehensive Psychiatry*, *30*(2), 170-178.
- Jackson, H. J., & Burgess, P. M. (2000). Personality disorders in the community: a report from the Australian National Survey of Mental Health and Wellbeing. *Social Psychiatry and Psychiatric Epidemiology*, *35*(12), 531-538.

- Jane, J. S., Oltmanns, T. F., South, S. C., & Turkheimer, E. (2007). Gender bias in diagnostic criteria for personality disorders: an item response theory analysis. *Journal of Abnormal Psychology, 116*(1), 166-175.
- Johansen, M., Karterud, S., Pedersen, G., Gude, T., & Falkum, E. (2004). An investigation of the prototype validity of the borderline DSM-IV construct. *Acta Psychiatrica Scandinavica, 109*(4), 289-298.
- John, O. P., & Robins, R. W. (1994). Accuracy and bias in self-perception: individual differences in self-enhancement and the role of narcissism. *Journal of Personality and Social Psychology, 66*(1), 206-206.
- Kaplan, M. (1983). A woman's view of DSM-III. *American Psychologist, 38*, 786-792.
- Kernberg, O. F. (1984). The couch at sea: Psychoanalytic studies of group and organizational leadership. *International Journal of Group Psychotherapy, 34*(1), 5-23.
- Klass, E. T., DiNardo, P. A., & Barlow, D. H. (1989). DSM-III-R personality diagnoses in anxiety disorder patients. *Comprehensive Psychiatry, 30*(3), 251-258.
- Klein, K. J., & Hodges, S. D. (2001). Gender differences, motivation, and empathic accuracy: When it pays to understand. *Personality and Social Psychology Bulletin, 27*(6), 720-730.
- Klonsky, E. D., & Oltmanns, T. F. (2002). Informant-reports of personality disorder: Relation to self-reports and future research directions. *Clinical Psychology: Science and Practice, 9*(3), 300-311.
- Kraepelin, E. (1904). Psychiatrie. Ein Lehrbuch für Studierende und Ärzte. Siebente, vielfach umgearbeitete Auflage. II. Band. Klinische Psychiatrie. *Leipzig: Barth Verlag, 892*.

- Lawton, E. M., Shields, A. J., & Oltmanns, T. F. (2011). Five-factor model personality disorder prototypes in a community sample: Self-and informant-reports predicting interview-based DSM diagnoses. *Personality Disorders: Theory, Research, and Treatment*, 2(4), 279-292.
- Lennon, R., & Eisenberg, N. (1987). Gender and age differences in empathy and sympathy. *Empathy and Its Development*, 195-217.
- Lenzenweger, M. F., Lane, M. C., Loranger, A. W., & Kessler, R. C. (2007). DSM-IV personality disorders in the National Comorbidity Survey Replication. *Biological Psychiatry*, 62(6), 553-564.
- Levesque, M., Vichesky, D., Simmons, M., Wicke, K., & Lipe, A. (2007). Physical attractiveness and sex in judgments about perceived sexually promiscuous others. *Psychological Reports*, 100(3_suppl), 1107-1112.
- Levy, K. N., Becker, D. F., Grilo, C. M., Mattanah, J. J., Garnet, K. E., Quinlan, D. M., ... & McGlashan, T. H. (1999). Concurrent and predictive validity of the personality disorder diagnosis in adolescent inpatients. *American Journal of Psychiatry*, 156(10), 1522-1528.
- Lindsay, K. A., & Widiger, T. A. (1995). Sex and gender bias in self-report personality disorder inventories: Item analysis of the MCMI-II, MMPI, and PDQ-R. *Journal of Personality Assessment*, 65(1), 1-20.
- Lindsay, K. A., Sankis, L. M., & Widiger, T. A. (2000). Gender bias in self-report personality disorder inventories. *Journal of Personality Disorders*, 14(3), 218-232.
- Lord, F. M. (1980). *Practical Applications of Item Response Theory*. Hillsdale, NJ; Blackwell Publishing.
- Macaskill, A., Maltby, J., & Day, L. (2002). Forgiveness of self and others and emotional empathy. *The Journal of Social Psychology*, 142(5), 663-665.

- McCormick, N. B., & Jones, A. J. (1989). Gender differences in nonverbal flirtation. *Journal of Sex Education and Therapy, 15*(4), 271-282.
- McCrae, R. R., Kurtz, J. E., Yamagata, S., & Terracciano, A. (2011). Internal consistency, retest reliability, and their implications for personality scale validity. *Personality and Social Psychology Review, 15*(1), 28-50.
- McCrae, R. R., & Terracciano, A. (2005). Universal features of personality traits from the observer's perspective: data from 50 cultures. *Journal of Personality and Social Psychology, 88*(3), 547-561.
- McGlashan, T. H. (1983). The borderline syndrome. *Archives of General Psychiatry, 40*, 1311-1323.
- McGlashan, T. H. (1986). Schizotypal personality disorder. *Arch Gen Psychiatry, 43*, 329-34.
- McLean, C. P., & Anderson, E. R. (2009). Brave men and timid women? A review of the gender differences in fear and anxiety. *Clinical Psychology Review, 29*(6), 496-505.
- Meehl, P. E., & Rosen, A. (1955). Antecedent probability and the efficiency of psychometric signs, patterns, or cutting scores. *Psychological Bulletin, 52*(3), 194-216.
- Mehlum, L., Friis, S., Irion, T., Johns, S., Karterud, S., Vaglum, P., & Vaglum, S. (1991). Personality disorders 2–5 years after treatment: a prospective follow-up study. *Acta Psychiatrica Scandinavica, 84*(1), 72-77.
- Meyer, G. J., Finn, S. E., Eyde, L. D., Kay, G. G., Moreland, K. L., Dies, R. R., ... & Reed, G. M. (2001). Psychological testing and psychological assessment: A review of evidence and issues. *American Psychologist, 56*(2), 128-165.

- Miller, J. D., Pilkonis, P. A., & Clifton, A. (2005). Self-and other-reports of traits from the five-factor model: Relations to personality disorder. *Journal of Personality Disorders, 19*(4), 400-419.
- Modestin, J., & Villiger, C. (1989). Follow-up study on borderline versus nonborderline personality disorders. *Comprehensive Psychiatry, 30*(3), 236-244.
- Möller-Leimkühler, A. M. (2002). Barriers to help-seeking by men: a review of sociocultural and clinical literature with particular reference to depression. *Journal of Affective Disorders, 71*(1), 1-9.
- Moran, P. (1999). The epidemiology of antisocial personality disorder. *Social Psychiatry and Psychiatric Epidemiology, 34*(5), 231-242.
- Morey, L. C., & Meyer, J. K. (2012). Course of personality disorder. *The Oxford Handbook of Personality Disorders, 275-295*.
- Morey, L. C., & Staff, P. A. R. (1991). Personality assessment inventory. *Personality Assessment, 2*, 181-228.
- Morey, L. C., Alexander, G. M., & Boggs, C. (2005). Gender and personality disorder. *Textbook of Personality Disorders, 541-554*.
- Morey, L. C., Benson, K. T., Busch, A. J., & Skodol, A. E. (2015). Personality disorders in DSM-5: Emerging research on the alternative model. *Current Psychiatry Reports, 17*(4), 1-9.
- Morey, L. C., Warner, M. B., & Boggs, C. D. (2002). Gender bias in the personality disorders criteria: An investigation of five bias indicators. *Journal of Psychopathology and Behavioral Assessment, 24*(1), 55-65.

- Mount, M. K., Barrick, M. R., & Strauss, J. P. (1994). Validity of observer ratings of the big five personality factors. *Journal of Applied Psychology, 79*(2), 272-272.
- Nace, E. P., & Davis, C. W. (1991). Axis II comorbidity in substance abusers. *The American Journal of Psychiatry, 148*(1), 118-120.
- Nakao, K., Gunderson, J. G., Phillips, K. A., Tanaka, N., Yorifuji, K., Takaishi, J., & Nishimura, T. (1992). Functional impairment in personality disorders. *Journal of Personality Disorders, 6*(1), 24-33.
- Nehls, N. (1998). Borderline personality disorder: Gender stereotypes, stigma, and limited system of care. *Issues in Mental Health Nursing, 19*(2), 97-112.
- Nestadt, G., Romanoski, A. J., Chahal, R., Merchant, A., Folstein, M. F., Gruenberg, E. M., & McHugh, P. R. (1990). An epidemiological study of histrionic personality disorder. *Psychological Medicine, 20*(2), 413-422.
- Okada, M., & Oltmanns, T. F. (2009). Comparison of three self-report measures of personality pathology. *Journal of Psychopathology and Behavioral Assessment, 31*(4), 358-367.
- Oltmanns, T. F., & Balsis, S. (2011). Personality disorders in later life: Questions about the measurement, course, and impact of disorders. *Annual Review of Clinical Psychology, 7*, 321-349.
- Oltmanns, T. F., & Gleason, M. E. (2011). Personality pathology, health, and social adjustment in later life. *Mental Health in Public Health: The next, 100*, 151-179.
- Oltmanns, T. F., & Strauss, M. E. (1998). Peer assessment of personality traits and pathology in female college students. *Assessment, 5*(1), 53-65.
- Oltmanns, T. F., & Turkheimer, E. (2006). Perceptions of self and others regarding pathological personality traits. *Personality and Psychopathology, 71*-111.

- Oltmanns, T. F., Rodrigues, M. M., Weinstein, Y., & Gleason, M. E. (2014). Prevalence of personality disorders at midlife in a community sample: Disorders and symptoms reflected in interview, self, and informant reports. *Journal of Psychopathology and Behavioral Assessment, 36*(2), 177-188.
- Paris, J., Brown, R., & Nowlis, D. (1987). Long-term follow-up of borderline patients in a general hospital. *Comprehensive Psychiatry, 28*(6), 530-535.
- Pfohl, B., Stangl, D., & Zimmerman, M. (1984). The implications of DSM-III personality disorders for patients with major depression. *Journal of Affective Disorders, 7*(3), 309-318.
- Plakun, E. M., Burkhardt, P. E., & Muller, J. P. (1985). 14-year follow-up of borderline and schizotypal personality disorders. *Comprehensive Psychiatry, 26*(5), 448-455.
- Powers, A., Strube, M. J., & Oltmanns, T. F. (2014). Personality pathology and increased use of medical resources in later adulthood. *The American Journal of Geriatric Psychiatry, 22*(12), 1478-1486.
- Prentice, D. A., & Carranza, E. (2002). What women and men should be, shouldn't be, are allowed to be, and don't have to be: The contents of prescriptive gender stereotypes. *Psychology of Women Quarterly, 26*(4), 269-281.
- Pulay, A. J., Stinson, F. S., Dawson, D. A., Goldstein, R. B., Chou, S. P., Huang, B., ... & Hasin, D. S. (2009). Prevalence, correlates, disability, and comorbidity of DSM-IV schizotypal personality disorder: results from the wave 2 national epidemiologic survey on alcohol and related conditions. *Primary Care Companion to the Journal of Clinical Psychiatry, 11*(2), 533-545.

- Raskin, R., Novacek, J., & Hogan, R. (1991). Narcissism, self-esteem, and defensive self-enhancement. *Journal of Personality*, *59*(1), 19-38.
- Reich, J., Yates, W., & Nduaguba, M. (1989). Prevalence of DSM-III personality disorders in the community. *Social Psychiatry and Psychiatric Epidemiology*, *24*(1), 12-16.
- Rienzi, B. M., & Scrams, D. J. (1991). Gender stereotypes for paranoid, antisocial, compulsive, dependent, and histrionic personality disorders. *Psychological Reports*, *69*(3), 976-978.
- Riso, L. P., Klein, D. N., Anderson, R. L., Ouimette, P. C., & Lizardi, H. (1994). Concordance between patients and informants on the personality disorder examination. *The American Journal of Psychiatry*, *151*(4), 568-573.
- Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, *57*(4), 743-762.
- Robins, L., & Helzer, J. E. (1994). The half-life of a structured interview: The NIMH Diagnostic Interview Schedule (DIS). *International Journal of Methods in Psychiatric Research*, *4*(2), 95-102.
- Rosenthal, M. Z., Cheavens, J. S., Lejuez, C. W., & Lynch, T. R. (2005). Thought suppression mediates the relationship between negative affect and borderline personality disorder symptoms. *Behaviour Research and Therapy*, *43*(9), 1173-1185.
- Samuel, D. B., & Widiger, T. W. (2010). Comparing personality disorder models: Cross-method assessment of the FFM and DSM-IV-TR. *Journal of Personality Disorders*, *24*(6), 721-745.
- Samuels, J., Eaton, W. W., Bienvenu, O. J., Brown, C. H., Costa, P. T., & Nestadt, G. (2002). Prevalence and correlates of personality disorders in a community sample. *The British Journal of Psychiatry*, *180*(6), 536-542.

- Sansone, R. A., & Sansone, L. A. (2011). Gender patterns in borderline personality disorder. *Innovations in Clinical Neuroscience*, 8(5), 16-20.
- Sansone, R. A., & Sansone, L. A. (2010). Measuring self-harm behavior with the self-harm inventory. *Psychiatry (Edgmont)*, 7(4), 16-20.
- Santangelo, P., Bohus, M., & Ebner-Priemer, U. W. (2014). Ecological momentary assessment in borderline personality disorder: a review of recent findings and methodological challenges. *Journal of Personality Disorders*, 28(4), 555-576.
- Santangelo, P., Reinhard, I., Mussgay, L., Steil, R., Sawitzki, G., Klein, C., ... & Ebner-Priemer, U. W. (2014). Specificity of affective instability in patients with borderline personality disorder compared to posttraumatic stress disorder, bulimia nervosa, and healthy controls. *Journal of Abnormal Psychology*, 123(1), 258-272.
- Sellbom, M., Anderson, J. L., & Bagby, R. M. (2013). Assessing DSM-5 Section III personality traits and disorders with the MMPI-2-RF. *Assessment*, 20(6), 709-722.
- Shea, M. T., Glass, D. R., Pilkonis, P. A., Watkins, J., & Docherty, J. P. (1987). Frequency and implications of personality disorders in a sample of depressed outpatients. *Journal of Personality Disorders*, 1(1), 27-42.
- Skodol, A. E., & Bender, D. S. (2003). Why are women diagnosed borderline more than men?. *Psychiatric Quarterly*, 74(4), 349-360.
- Skodol, A. E., Bender, D. S., Morey, L. C., Clark, L. A., Oldham, J. M., Alarcon, R. D., & Siever, L. J. (2011). Personality disorder types proposed for DSM-5. *Journal of Personality Disorders*, 25(2), 136-169.
- Skodol, A. E., Gunderson, J. G., McGlashan, T. H., Dyck, I. R., Stout, R. L., Bender, D. S., & Sanislow, C. A. (2002). Functional impairment in patients with schizotypal, borderline,

- avoidant, or obsessive-compulsive personality disorder. *American Journal of Psychiatry*, 159(2), 276-283.
- Skodol, A. E., Gunderson, J. G., Shea, M. T., McGlashan, T. H., Morey, L. C., Sanislow, C. A., & Pagano, M. E. (2005). The collaborative longitudinal personality disorders study (CLPS): Overview and implications. *Journal of Personality Disorders*, 19(5), 487-504.
- Stuart, S., Pfohl, B., Battaglia, M., Bellodi, L., Grove, W., & Cadoret, R. (1998). The cooccurrence of DSM-III-R personality disorders. *Journal of Personality Disorders*, 12(4), 302-315.
- Swartz, M., Blazer, D., George, L., & Winfield, I. (1990). Estimating the prevalence of borderline personality disorder in the community. *Journal of Personality Disorders*, 4(3), 257-272.
- Thissen, D. (2001). IRTLRDIF v. 2.0 b: *Software for the Computation of the Statistics Involved in Item Response Theory Likelihood-ratio Tests for Differential Item Functioning*. Chapel Hill, NC: LL Thurstone Psychometric Laboratory.
- Thissen, D., Steinberg, L., & Gerrard, M. (1986). Beyond group-mean differences: The concept of item bias. *Psychological Bulletin*, 99(1), 118-128.
- Thomas, G. V. (1996). The effects of mood states on self-report, interview, and informant assessments of personality disorders. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 57(3-B), 2168.
- Torgersen, S. (1984). Genetic and nosological aspects of schizotypal and borderline personality disorders: A twin study. *Archives of General Psychiatry*, 41(6), 546-554.
- Torgersen, S. (2009). The nature (and nurture) of personality disorders. *Scandinavian Journal of Psychology*, 50(6), 624-632.

- Torgersen, S., Kringlen, E., & Cramer, V. (2001). The prevalence of personality disorders in a community sample. *Archives of General Psychiatry*, 58(6), 590-596.
- Trull, T. J., & Durrett, C. A. (2005). Categorical and dimensional models of personality disorder. *Annual Review of Clinical Psychology*, 1, 355-380.
- Trull, T. J., Jahng, S., Tomko, R. L., Wood, P. K., & Sher, K. J. (2010). Revised NESARC personality disorder diagnoses: gender, prevalence, and comorbidity with substance dependence disorders. *Journal of Personality Disorders*, 24(4), 412-426.
- Trull, T. J., Solhan, M. B., Tragesser, S. L., Jahng, S., Wood, P. K., Piasecki, T. M., & Watson, D. (2008). Affective instability: measuring a core feature of borderline personality disorder with ecological momentary assessment. *Journal of Abnormal Psychology*, 117(3), 647-661.
- Turner, S. M., Beidel, D. C., Borden, J. W., Stanley, M. A., & Jacob, R. G. (1991). Social phobia: Axis I and II correlates. *Journal of Abnormal Psychology*, 100(1), 102-106.
- Vazire, S. (2010). Who knows what about a person? The self–other knowledge asymmetry (SOKA) model. *Journal of Personality and Social Psychology*, 98(2), 281-300.
- Vazire, S., & Mehl, M. R. (2008). Knowing me, knowing you: the accuracy and unique predictive validity of self-ratings and other-ratings of daily behavior. *Journal of Personality and Social Psychology*, 95(5), 1202-1206.
- Verheul, R., & Widiger, T. A. (2004). A meta-analysis of the prevalence and usage of the personality disorder not otherwise specified (PDNOS) diagnosis. *Journal of Personality Disorders*, 18(4), 309-319.

- Walker, L. E. A. (1994). Are personality disorders gender biased? In S. A. Kirk & S. D. Einbinder (Eds.), *Controversial Issues in Mental Health* (pp. 22–29). New York: Allyn & Bacon.
- Wasserman, D. (2016). Personality disorders and suicide. *Suicide: An Unnecessary Death*, 113-122.
- Widiger, T. A. (1998). Personality disorders. In *Advanced Personality* (pp. 335-352). Springer, Boston, MA.
- Widiger, T. A., & Trull, T. J. (1993). Borderline and narcissistic personality disorders. In *Comprehensive Handbook of Psychopathology* (pp. 371-394). Springer, Boston, MA.
- Widiger, T. A., & Trull, T. J. (2007). Plate tectonics in the classification of personality disorder: shifting to a dimensional model. *American Psychologist*, 62(2), 71-83.
- Zanarini, M. C., Frankenburg, F. R., Reich, D. B., & Fitzmaurice, G. (2010). The 10-year course of psychosocial functioning among patients with borderline personality disorder and axis II comparison subjects. *Acta Psychiatrica Scandinavica*, 122(2), 103-109.
- Zimmerman, M. (1994). Diagnosing personality disorders: A review of issues and research methods. *Archives of General Psychiatry*, 51(3), 225-245.
- Zimmerman, M., & Coryell, W. (1989). DSM-III personality disorder diagnoses in a nonpatient sample: Demographic correlates and comorbidity. *Archives of General Psychiatry*, 46(8), 682-689.
- Zimmerman, M., Pfohl, B., Stangl, D., & Corenthal, C. (1986). Assessment of DSM-III personality disorders: the importance of interviewing an informant. *The Journal of Clinical Psychiatry*, 47(5), 261-263.

Zimmerman, M., Rothschild, L., & Chelminski, I. (2005). The prevalence of DSM-IV personality disorders in psychiatric outpatients. *American Journal of Psychiatry*, *162*(10), 1911-1918.

Zlotnick, C., Rothschild, L., & Zimmerman, M. (2002). The role of gender in the clinical presentation of patients with borderline personality disorder. *Journal of Personality Disorders*, *16*(3), 277-282.