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The Agreement between Clients' and their Therapists' Ratings of Personality Disorder Traits

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Abstract

Objective: Treating clinicians provide the majority of mental health diagnoses, yet little is known about the validity of their routine diagnoses, including the agreement with clients' self-reports. This is particularly notable for personality disorders (PDs) as the literature suggests weak agreement between therapists and clients. Existing research has been limited by a focus on PD categories and brief therapist-report measures. Furthermore, although self-reports of PD have been criticized for under-reporting, very few data have compared them to therapist-report in terms of mean-level. **Method:** We addressed these limitations by collecting dimensional trait ratings from 54 therapist-client dyads within outpatient clinics. The clients (52% women, 94% Caucasian, 39.8 years) provided ratings of dimensional PD traits via the Personality Inventory for DSM-5 (PID-5) while therapists (72% female, 89% Caucasian) completed the Informant version of the same measure. **Results:** Employing systematic measures of traits yielded higher rank-order agreement than observed in prior studies, with a median correlation of .41 across the PID-5 domains. Most interestingly, mean-level comparisons indicated that clients reported significantly *higher* levels of PD pathology than did their therapists. This effect was most notable for the domain of Psychoticism, which had the lowest rank-order agreement ($r = .16$) and the largest mean-level discrepancies. **Conclusions:** When clinicians utilized systematic measures of dimensional traits their agreement with client was higher than reported in past studies. Furthermore, clients reported significantly more PD pathology than was noted by their therapists suggesting concerns about invalid self-reports due to under-reporting have been overstated.

Keywords: *Clinical Diagnosis; Personality Disorder; PID-5; FFM; Psychoticism*

Public Health Significance Statement:

This study indicates that when provided similar tools to report psychological functioning, clients and their clinicians agree more about their personality disorder diagnoses than was previously expected. In particular, results suggest concerns that clients lack awareness of their personality pathology have been overstated.

The Agreement between Clients' and their Therapists' Ratings of Personality Disorder Traits

Despite a longstanding historical focus on improving the classification and treatment of mental disorders, there has been relatively less attention devoted to ascertaining the validity of the diagnoses that are assigned in clinical settings. An editorial in the Lancet nearly 40 years ago referred to issues of diagnostic reliability and validity as the "backwoods" of medical research (Lancet, 1979; as cited in Kraemer, Kupfer, Clarke, Narrow, & Regier, 2012). Although Kraemer and colleagues accurately noted that the quality of mental health diagnoses had received relatively more attention than many other medical disorders, they suggested an increased focus on the reliability and validity of clinical diagnoses. Further they highlighted that the "impact of diagnostic quality on the quality and costs of patient care is great" (p. 15).

Empirical science has considerably advanced our understanding of mental illness and the types of psychotherapy that are the most helpful for which diagnoses (e. g., Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). However, those research settings typically utilize diagnostic procedures that differ considerably from methods used in clinical practice. As a result, little is known about the reliability and validity of the diagnoses assigned in routine clinical practice. A particularly consequential indicator of clinicians' diagnostic validity is the extent to which clinicians' perceptions converge with the methods used in research settings (i.e., self-report and semi-structured interviews). If the diagnoses assigned in clinical practice do not match up with those diagnosed in research studies, then it will greatly impede the opportunity for translating empirical findings into practice (Samuel, Suzuki, & Griffin, 2016).

Concern about agreement across these sources appears well-founded as there are major differences in the methods that are used to arrive at diagnoses. Whereas diagnostic assignments in research settings are nearly universally based on a series of standardized measures that are

based on the report of the client either in whole (e.g., a self-report questionnaire) or in part (e.g., a semistructured interview), these methods are rarely used in clinical practice. Instead, clinicians typically produce holistic diagnostic impressions that are based on unstructured interviews that are conducted and aggregated informally (Westen & Weinberger, 2004). Thus, a particularly informative step in ascertaining the validity of diagnoses in clinical settings is to determine the degree of overlap between clinicians' routine diagnostic impressions and those methods typically used in research settings. In other words, how well do clinicians' ratings converge with the clients' self-perceptions?

Personality disorder (PD) represents a particularly compelling focus for such an investigation. For one, PD diagnostic procedures have been noted for vast methodological differences between those assigned in routine clinical practice and those client-reported diagnoses commonly used in research settings (Westen, 1997). Furthermore, there is a perception among many clinicians that clients' self-reports of PD pathology are fraught with limitations and biases, due to the nature of the pathology (Huprich, Bornstein, & Schmitt, 2011). In this way, the convergence of PD represents a stringent test of client and therapist agreement.

Samuel (2015) recently synthesized 27 studies that reported on the rank-order agreement between PD diagnoses assigned by treating clinicians and those derived from clients' self-reports. The overall median agreement across those studies was $r = .23$ for dimensional ratings. This effect size suggested minimal overlap between PD ratings from therapists and clients. There were factors that moderated this relationship, such that clinicians' diagnoses agreed somewhat more strongly with semi-structured interviews ($r = .28$) than with self-report questionnaires ($r = .22$). Furthermore, the convergence across sources increased slightly when the clinicians utilized more structured methods. For example, when clinicians assigned PD diagnoses using the

Shedler-Westen Assessment Procedure (SWAP-200; Westen & Shedler, 1999), which required sorting 200 statements into successively smaller piles using a Q-sort method, the overall agreement with client-rated diagnoses improved to $r = .33$. Thus, although it appeared that more robust and systematic assessment instruments did aid clinicians in aggregating their clinical judgments, the overall agreement between clinicians and their clients remained quite modest. Nonetheless, this literature is not without limitations that cloud the overall picture of client-therapist agreement.

Importantly, the existing studies almost exclusively have investigated rank-order agreement between clinicians and clients. In contrast, almost nothing is known about how these sources differ in terms of the *mean level* of pathology they report. This is particularly important as prevailing wisdom suggests that self-reports of PD pathology should be looked on with skepticism due to limitations of insight or purposeful misrepresentation (Ganellen, 2007; Huprich et al., 2011). This would strongly suggest that there would be notable differences in the levels of pathology reported by each source, with clinicians detecting and rating higher levels than are perceived by the client. Nonetheless, most of that prevailing wisdom does appear to be anecdotal. When considering self- versus informant-reports of psychopathology it generally appears that, despite a few exceptions (e. g., narcissistic PD; Cooper, Balsis, & Oltmanns, 2012), self-reports are almost universally higher than informants (Rescorla et al., 2016). Nonetheless, clinicians are a very special case of informant and it is unknown how this might translate. There has been only one study that has explicitly compared mean-levels of therapist and client PD ratings. Davidson, Obonsawin, Seils, and Patience (2003) examined mean-level differences among clients' and clinicians' completion of the SWAP-200 and a modified version of the SWAP-200. Interestingly, they found that these mean differences varied considerably, with some

PDs rated consistently higher by clinicians (e.g., antisocial, paranoid), while others were consistently rated higher by the clients (e.g., obsessive-compulsive). This preliminary evidence does appear to suggest that in some cases the mean-level differences across client and clinician sources might be considerable.

An additional limitation of the available literature on therapist-client PD agreement is that findings are predicated on the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), categories. These categories have been widely criticized for a host of reasons (Clark, 2007). Among the most consequential criticisms is the problematic heterogeneity of the categories, which almost certainly places a cap on these cross-method convergent correlations. Thus, the rather modest estimates of rank-order agreement reported by Samuel (2015) might be suppressed by their reliance on PD categories.

In light of the criticisms of the DSM-5 categories, an alternative trait-based model has been proposed to move towards utilizing continuous indicators when measuring and diagnosing personality disorders (PDs). The DSM-5 Section III provides an alternative dimensional PD model that includes a set of 25 traits that research has indicated can be sorted into five higher order domains labeled negative affectivity, detachment, antagonism, disinhibition, and psychoticism. A number of studies have now been conducted with this trait model and they have indicated initial support for its validity (Krueger & Markon, 2014) and clinical utility (Morey, Skodol, & Oldham, 2014). However, there has not yet been a study that has examined the validity of clinicians' ratings of these traits. Few et al. (2013) obtained diagnostic ratings on these traits from individuals following a set of clinical interviews and showed they agreed quite well (*mdn* domain $r = .63$) with the clients' self-reports on the Personality Instrument for DSM-5 (PID-5; Krueger, Derringer, Markon, Watson, & Skodol, 2012). However, the raters in Few et al

(2013) were research personnel not involved in the clinical care of the clients. Thus, it remains unknown how well ratings by practicing clinicians, based on their naturalistic clinical interactions, would agree with self-reports from clients in terms of the DSM-5 PD traits.

There have, though, been a handful of studies that have examined the clinical application of the Five-Factor Model (FFM) by practicing clinicians and that are potentially relevant to this issue (Samuel & Widiger, 2010; Soldz, Budman, Demby, & Merry, 1995), as the FFM domains conceptually overlap with the DSM-5 alternative PD model (APA, 2013). In addition, a number of empirical studies have indicated that these models are highly similar in terms of their structure (Gore & Widiger, 2013), construct coverage (Suzuki, Samuel, Pahlen, & Krueger, 2015), and nomological networks (Suzuki, Griffin, & Samuel, 2017). Samuel & Widiger (2010) obtained ratings of FFM traits (and PDs) from a group of clients and their treating therapists. They reported that the ratings of FFM traits showed comparable values to the PD categories, with a median of .20 across the domains. However, a limitation of that study, as well as virtually the entire literature on therapist-reports, has been the reliance on very brief rating forms for collecting ratings from therapists. Despite the formidable challenge of convincing busy clinicians to complete longer measures, it is clear that systematic assessments should be preferred (Westen & Weinberger, 2004) and will produce larger validity coefficients (Samuel et al., 2013). Without providing equivalent forms to both parties, it will be difficult to ascertain true similarities or differences among therapists and clients.

The present study addresses these limitations and extends the literature by collecting ratings on the DSM-5 dimensional pathological traits from a group of practicing clinicians and their clients. Importantly, these ratings were collected using parallel forms of the PID-5, which allows the isolation of source differences from methodological variance. Specifically, clients

provided self-report using the 220-item self-report PID-5 and the clinicians completed the 221 items on the PID-5 Informant-report Form (PID-5-IRF; Markon, Quilty, Bagby, & Krueger, 2013). The use of equivalent forms of these traits also allowed for a direct comparison of mean-level agreement, whereas most studies have only examined rank-order correlations.

We hypothesized that this methodology (i.e., equivalent and systematic instruments of dimensional traits) would reveal stronger correlations between clinicians and clients, with values in the .30 to .40 range across the five domains. However, based on the hypothesized impact of trait observability on interrater agreement (e. g., Vazire, 2010), we expected agreement to be higher for more readily observable traits such as antagonism, detachment, and disinhibition than for psychoticism and negative affectivity. This hypothesis for negative affectivity was most tentative as, although negative emotions are internal and less observable in typical interactions, they are discussed with great frequency in therapy sessions and might therefore be more "observable" to clinicians. Further, we hypothesized that mean-level comparisons would indicate that clinicians viewed the client as having more pathology than the client observed in him or herself. This hypothesis was based upon the notion that clients' self-descriptions are inaccurate due to lack of insight into their own personality pathology as well as explicit (or implicit) attempts to distort their self-presentation in a positive manner (Ganellen, 2007; Huprich et al., 2011). Nonetheless, this data collection will be the first to determine the mean-level agreement of pathological personality traits as rated by clients and their clinicians.

Method

We recruited 56 individuals who were engaged in ongoing outpatient individual psychotherapy along with their treating clinicians ($n = 18$). For two cases, the therapist did not provide ratings of the clients and so these were excluded from further analyses, leaving a total

sample of 108 ratings from 54 clinician-client pairs. Recruitment began with securing informed consent from therapists from several clinics within Lafayette, Indiana. Those therapists who consented to participate posted flyers within their clinic waiting rooms or offices where clients would see the materials. Interested clients then called research personnel to learn more about the study and schedule a session. During this phone call, research personnel confirmed that clients had completed at least four sessions with a consented therapist. The primary rationale for collecting data after at least four sessions was to facilitate the clinicians' initial familiarity with the individual before they are asked to provide ratings, but also alleviate transitory distress that might cloud patients' self-description upon therapy initiation (Morey et al., 2010).

A brief screening was completed to confirm participants were over age 18 and met other inclusion criteria. Individuals were excluded only if they were unable to read and/or understand written English, were diagnosed with intellectual disability or a psychotic disorder, or were determined to be in an acutely manic episode by their therapist. One individual was excluded who had obtained the flyer from a friend and was not in therapy with a consented therapist.

Initial Assessment. Participants were scheduled to visit the research lab to complete a battery of self-report measures that included the PID-5. At the conclusion of this session client participants were provided $50 as compensation for the approximately two hours of time (*mdn* = 103 minutes). Immediately following each participant's completion of the initial assessment his or her treating clinician was provided with a link to a secure survey website containing a battery including a brief demographic form and informant reports on the client. Notable was the completion of the PID-5 by the therapists. On average, enrolled therapists completed these measures 22 days after the participant completed the initial assessment. Clinicians were provided $100 as compensation for their professional time. The median completion time was 47 minutes,

which reflects a rate of approximately $100 per hour that is consistent with previous studies of this nature (Westen & Shedler, 1999).

Participants

Clients' mean age was 39.8 years (*sd* = 12.6). Fifty-two percent were female, and the majority identified as Caucasian (94%), while 4% identified as Black or African American and 2% identified as American Indian or Alaskan Native. Sixteen percent indicated they had not obtained a high school degree/GED, and 77% had not attained a college degree. Around 4% of clients indicated they had obtained some type of graduate degree, such as a master's or PhD. 45% of clients were single, 14% married, and 38% divorced. The most common psychiatric diagnoses in clients' charts were mood and substance use disorders. Five clients had PD diagnoses recorded in their chart. Clinician-reported GAF scores ranged from 40 to 85 with a mean of 55.

A total of 18 therapists rated from 1 to 12 clients each, with a median of two clients per therapist. Mean number of sessions with clients before providing the ratings was 20.1 (*sd* = 19.4). Thirteen therapists were female, and 16 identified as Caucasian, while one therapist identified as Hawaiian or Pacific Islander. Fourteen of the therapists indicated they were master's-level clinicians and four had doctorates (either PhD or PsyD).

Measures

Personality Inventory for DSM-5 (PID-5; Krueger et al., 2012). The PID-5 has 220 items, which are scored on a 4-point Likert-type scale containing response options ranging from *very false or often false* to *very true or often true*. It is scored for 25 lower-order facets by averaging item responses for each facet scale. Internal consistency values for the 25 facet scales ranged from .60 (Irresponsibility) to .95 (Eccentricity), with a median value of .89. The facet scales can

also be aggregated into five-higher order domains. Domain scores were calculated by averaging

scores for all of the scales based on their primary placements specified within DSM-5 Section III

(i.e., each scale contributed to only one domain score).

       PID-5-Informat Rating Form (PID-5-IRF; Markon, Quilty, Bagby, & Krueger, 2013).

The PID-5-IRF is a 221-item informant measure of maladaptive personality traits. The format

and content is identical to the PID-5 except that items are phrased to ask about a third-party (in

this case the participant). The informant-report form has been found to replicate the factor

structure and nomological network of the self-report form (Markon, Quilty, Bagby, & Krueger,

2013). Internal consistency values for the 25 facets ranged from .72 (Submissiveness) to .97

(Eccentricity), with a median value of .90. This range is entirely consistent with scale internal

consistencies reported previously (Markon, Quilty, Bagby, & Krueger, 2013). As with the client-

report version, domain scores were calculated by averaging scores for all of the scales based on

primary placements specified within DSM-5 Section III.

<p align="center">*Results*</p>

Rank-Order Agreement

       We first conducted a series of correlation analyses to quantify the rank-order agreement

between client and therapist ratings on the PID-5 at the domain level (Table 1). The values on the

diagonal represent the convergent correlations. The agreement ranged from $r = .16$ (95%

Confidence Interval [CI] = -.10 to .40; Psychoticism) to $r = .61$ (95% CI= .42 to .75;

Disinhibition) with a median of $r = .41$. To put these values into context, we also calculated

discriminant correlations between the client and therapist ratings of different traits (e.g., client

rating of Negative Affectivity and therapist rating of Detachment; Table 1). These discriminant

correlations ranged from $r = -.15$ (client rating on Negative Affectivity and therapist rating on

Psychoticism) to $r = .40$ (client rating on Psychoticism and therapist rating on Disinhibition). In all cases, the therapist ratings correlated mostly highly with the same domain from the client's self-report. The client ratings also suggested strong convergent and discriminant validity. The only domain where the client rated score correlated more highly with a discriminant domain was psychoticism.

We also conducted the same analyses for the facets (Table 2). The full 25×25 facet-level correlation matrix is available as online supplement A, but we summarize the results in Table 2. The rank-order agreement for the facets ranged from $r = -.06$ (Perseveration; 95% CI = -.32 to .21) to $r = .65$ (Withdrawal; 95% CI = .46 to .78), with an overall median of $r = .33$ across the 25 facets. The discriminant correlations for the facets ranged from $r = -.40$ (client rating on Manipulativeness and therapist rating on Submissiveness) to $r = .58$ (client rating on anhedonia and therapist rating Depressivity; and client rating on withdrawal and therapist rating on Suspiciousness). As can be seen from these examples, the strongest associations were between facets that are conceptually most similar (or dissimilar). For all but two facets, the median discriminant validity coefficient was lower than the convergent correlation. The agreement effect sizes were stronger than even the maximal discriminant correlations for 12 facets, whereas the other 13 obtained a stronger correlation with at least one non-target facet scale.

Mean-Level Agreement

A novel contribution of the present study are the mean-level comparisons between the ratings from clients and their therapists. Our primary concern for these was the magnitude and direction of the differences as indicated by Cohen's d, which was interpreted as $d \geq .20$ as small, $d \geq .50$ as medium, $d \geq .80$ as large effect sizes (Cohen, 1992). However, we also conducted a series of paired sample t-tests and to correct for multiple comparisons, we used a significance

value of $p < .01$ for all analyses. Table 2 presents the means and standard deviations for the clinicians and clients, as well as the t-values and d scores.

At the broadest level, it was immediately clear that the client-rated PID-5 scores were higher than the therapist-rated PID-5 scores, with an overall mean d score of .31. In fact, across the 25 facets, there were only four where the mean was higher for the therapist-ratings at an absolute level. Furthermore, the effects in that direction were tiny (-.02, -.05, -.09, and -.16), with the largest value for Callousness. In contrast, there were a number of facets for which the client-ratings were notably higher. Seven facets obtained at least small effects, three had medium effects, and an additional three had difference scores that were large. The nine largest effects also had t-values that were statistically significant.

The larger effect sizes were concentrated within specific PID-5 domains. By far, the largest effects were found within the Psychoticism domain, with ratings for Unusual Beliefs and Experiences ($d = 1.13$; 95% CI = .78 to 1.46), Perceptual Dysregulation ($d = .94$; CI = .62 to 1.26), and Eccentricity ($d = .74$; CI = .44 to 1.04) substantially higher from the clients than therapists. Rigid Perfectionism, a scale in the Disinhibition domain also obtained a particularly large effect ($d = 1.03$; CI = .69 to 1.35). In addition, a number of medium effects were observed within the domain of Negative Affectivity, with the facets of Depressivity ($d = .54$; CI = .25 to .82), Emotional Lability ($d = .53$; CI = .24 to .81), Anxiousness ($d = .47$; CI = .19 to .75), and Perseveration ($d = .43$; CI = .15 to .70) all significantly higher for the clients than therapists. Other than Distractibility ($d = .45$; CI = .16 to .72) and the previously mentioned finding for Rigid Perfectionism, the other effects within the Disinhibition domain were modest. Similarly, only a small difference was observed for facets in the domain of Detachment (i.e., the facet of

Withdrawal; $d = .31$; CI $= .04$ to .58) and only the facet of Attention Seeking ($d = .20$; CI $= -.07$ to .47) achieved even a small effect from the facets from Antagonism.

Therapist Effects

Given the wide range in the number of client assessments completed by each therapist, we wanted to check whether individual therapists impacted the overall client-therapist agreement. To assess for this, we calculated the 95% CI surrounding the convergent correlation coefficient for each domain within the full sample. We then sequentially removed each therapist's ratings from the dataset and calculated the convergent correlation for each domain using the remainder of the sample (Gritti, Samuel, & Lang, 2016). None of the correlations for the subsamples fell outside of that CI for the full sample, so we concluded that there were no significant effects of individual therapists on the agreement with client ratings.

Temporal Effects

Although we did not hypothesize this in advance, an anonymous reviewer pointed out that one potential explanation of the observed mean-level effects could be a real decrease in the traits during time lag between client and therapist ratings (3 weeks on average). This anonymous reviewer proposed two methods of testing this possibility. First, we examined the degree to which our rate of change compares to longitudinal stability estimates for the PID-5. Second, we utilized the variability among the time lag in our sample to determine if greater lags were associated with differences. For the first method, we examined Wright et al. (2015), which provides the only available estimate of test-retest stability of the PID-5 within a clinical sample. They observed a change of $d = -.12$ over 1.44 years (525 days). Extrapolating a constant rate of change, we would therefore have expected a $d = .005$ over 22 days based on naturalistic decrease. For the second method we calculated a difference score for each domain within each

client-therapist dyad, such that higher values indicated the degree the client reported higher scores than the therapist. We then correlated these scores with the temporal lag for that therapist's report. Negative correlations would have suggested that the longer the time lag between ratings, the more the therapist rating was lower than the client rating. However, the observed correlations for each domain were small and *positive* (range from .07 to .33). Taken together, both of these methods alleviate concerns that the time-lag between client and therapist reports was responsible for observed mean-level differences.

Discussion

Despite the fact that the vast majority of diagnostic decisions in clinical settings are provided by treating therapists, very little is known about the validity of their diagnostic ratings. One particularly interesting property of clinicians' ratings is how well they agree with client self-reports, which are the predominant method of assessment in research settings. Past research has indicated substantial disagreement between these two sources when it comes to PD ratings, suggesting that client reports might agree less with therapists than with other types of informants (Samuel, 2015). Nonetheless, there have been several limitations to this literature that leaves the state of the knowledge incomplete. The present study addressed several of these limitations and extended the literature on this topic in several key ways.

First, this is the only study that has determined the agreement between clients and treating therapists for the traits included in DSM-5 Section III. Second, the study utilized systematic, parallel forms of the PID-5 that equated the sources in terms of the method used to aggregate their responses. By doing so, we were able to isolate the rank-order agreement between sources as well as provide a detailed test of mean-level differences. This latter point is particularly informative as there has been longstanding conjecture and anecdotal reports that lack

of insight and other potential biases might result in the client underreporting PD pathology

(Ganellen, 2007), yet very few data have been brought to bear on this question.

Rank-Order Agreement

A clear finding from the present study was an increased rank-order agreement between

clients and therapists for PD pathology, relative to the prior literature. A review of extant studies

suggested that the correlation between these methods for the PD categories was around .23

(Samuel, 2015). In contrast, the present study found a median agreement of .41 across the

domains of the PID-5. Facets were also in similar range, with an overall median value of .33 and

nine facets obtaining values above .40. Although lower than past client-therapist PD agreement,

these correlations were more in line with those observed between self-reports and peer

informants of broad psychopathology using parallel forms (*mdn r* = .47; Rescorla et al., 2016)

and perhaps even higher than PD categories (*mdn* = .36; Klonsky, Oltmanns, & Turkheimer,

2002) or general FFM trait domains (*mdn* = .36; Connolly, Kavanagh, & Viswesvaran, 2007).

This elevated agreement compared to past therapist-reported PD studies (other than

psychoticism) likely reflects the combination of several factors. First, a key strength of the

present method was utilizing parallel forms, which increases the correlation across sources (e. g.,

Achenbach, Krukowski, Dumenci, & Ivanova, 2005). Second, the use of dimensions, as opposed

to PD categories might also have increased agreement. Clearly more work that further

determines the factors that enhance or detract from therapist-client agreement is necessary, but

these findings alleviate concerns about fundamental discrepancies.

Mean-Level Agreement

Contrary to expectations, we found that clients generally reported *higher* levels of PD

traits. Across Table 2, only four of the 25 facets had therapist-reported levels that were higher

than the client and even these effects were quite small (e.g., the largest was $d = -.16$). In contrast, the effects in the other direction were quite large. For example, all three facets from the domain of psychoticism were much larger in the direction of the client-report, as the effect of Unusual Beliefs and Experiences ($d = 1.13$) indicated a dramatic discrepancy. Altogether, 13 of the 25 facets favored the clients with an effect size of at least .20, yielding emphatic evidence that clients rate their PD pathology higher than do their therapists.

Although we cannot determine which of the two sources is "right" in an absolute sense, we can say with certainty that clients do not report less – and actually report significantly more – personality pathology than do their therapists. As such, our results suggest that concerns about underreporting of PD symptoms among clients might have been overstated (Huprich et al., 2011). There are a number of possible explanations that warrant future examination. One possibility is that this finding reflects clients' distress in a way that overestimates psychopathology (i.e., a "cry for help"). This could be probed by examining validity scales, such as negative impression management from the Personality Assessment Inventory (Morey, 1991), to see how strongly they relate to mean-level differences between patient and therapists. This explanation jibes with psychoticism and negative affectivity having the most pronounced differences, as although psychoticism is not typically considered an indicator of broad distress, it does function this way on the PID-5 (Crego & Widiger, 2016).

Another possible explanation is that clients and therapists have very different reference frames when it comes to completing PD items. When clients are responding they may be mentally comparing themselves to family members, friends, or co-workers who display relatively less extreme manifestations of these traits. We hypothesize that this results in the clients generally choosing more extreme options on the self-report scale. In contrast, therapists'

frame of reference includes an array of other patients that represent a wider breadth of severity and impairment. Thus, therapists might be more reluctant to use the most extreme responses. This would result in a compression of scores and lower mean levels on the graded True-False scaling metric of the PID-5 (although notably, it would produce bias toward the middle response option on a scaling metric where either maladaptivity was apparent at both poles). It would be highly informative to investigate the measurement invariance of the PID-5 across these reporting sources. Of course, this would require much larger samples than were available here.

Nonetheless, it is also worth noting that the effects suggesting higher mean-levels for clients than therapists, although systematic across most domains, were much more notable for the domains of psychoticism and negative affectivity. These were two domains that are more internal and less readily observable. Although it did not appear that rank-order agreement was limited for negative affectivity in this study, it is possible that these internal affective states are more challenging for therapists to rate. In sum, there may be global factors that play into greater client mean-level ratings for clients, such as the reference frame, but that this overall effect might be moderated by the internal nature and observability of different aspects of PD pathology (i. e., Carlson, Vazire, & Oltmanns, 2013).

Discrepancies in Psychoticism

The most dramatic outlier within this study was PID-5 psychoticism. Within the DSM-5 trait model, psychoticism depicts the oddity, eccentricity, fantasy proneness, and cognitive/perceptual dysregulation that were historically captured by schizotypal PD. Not only did this domain obtain the lowest rank-order agreement but also the largest mean-level difference, indicating that clients and therapists have fundamentally different viewpoints on the psychoticism. Whereas clients rated themselves toward the middle response options ($M = 1.39$

on a 0-3 metric) – a value comparable to the self-reported means on other domains – the clinicians were extremely reluctant to endorse symptoms (M = .62) compared to the other domains. The difference in response style is clearly identifiable in the score distributions presented in Figure 1. The client scores display a relatively normal distribution whereas the distribution of therapist ratings is positively skewed with only a few clients rated at the highest levels. Available data do not allow a firm conclusion, but suggest that therapists' low ratings on psychoticism – rather than high client ratings – are responsible for the differences.

This pattern might reflect that clinicians underreported the true level of psychoticism because they were unaware of these symptoms in their clients. As noted above, these symptoms are almost exclusively internal (e.g., strange beliefs or dissociation) and so it is possible that these less observable symptoms might be overlooked in routine (unstructured) diagnostic interviews. For example, it might not be startling for a therapist to be unaware of the extent to which a client has ideas that are "too unusual to explain to anyone." Lower endorsement of psychoticism items by therapists then might simply reflect a tendency to assume the absence of pathology unless they have specific information to suggest its presence.

It is also possible that clients are reporting levels of psychoticism greater than actually exist. The effect of reference frame, discussed above, might be particularly salient for this domain. For example, when rating an item inquiring about the feeling that one cannot control their own thoughts, a client might find even one such experience over the course of their life to be so highly unusual that they would endorse an extreme response option. However, client's elevated scores might also reflect lack of precision on the scale that results in clients endorsing items for reasons other than those intended. There are a number of subtle items on PID-5 psychoticism scales that are intended to tap cognitive and perceptual aberrations, yet might

prompt endorsement for other reasons. For example, one PID-5 item asks about having ideas that others consider strange. It would not be surprising for a person to endorse such an item due to depression as others might tell them that their pessimistic thoughts were "strange" or "didn't make sense." Endorsement of psychoticism items for these sort of reasons would clearly lead to higher scores that overlap with other scales. Problematic discriminant validity, in fact, has been a common finding of PID-5 psychoticism (Crego & Widiger, 2016), as it routinely correlates above .50 with the other domains. Future research that examines item endorsement decisions or includes a follow-up interview to probe for examples, would be valuable in arbitrating these possibilities.

Limitations and Future Directions

As important as the need is for integrating practicing clinicians into research (Samuel & Bucher, 2017), obtaining large samples is a particular challenge and the present study was no exception. Although 54 clinician and client pairs took considerable time and resources to collect, it remains small. It was, though, quite similar to prior studies of clinician and client agreement. The median sample size across the 27 studies Samuel (2015) reviewed was 72. We continue to believe that this sort of research is informative despite the sample size limitations because it focuses primarily on effect size estimates and contributes to a building literature. Clearly, though, despite the challenges of collecting clinician reports, it is crucial to continue to seek larger samples. Larger samples would also allow examination of potential moderator variables such as training background or theoretical orientation of the clinicians, length of treatment, and presence of additional psychiatric diagnoses.

This sample was drawn from general outpatient clinics in one geographic location. It would be ideal for future studies to sample from a diverse series of clinics that are more

representative of the clinical populations (both demographically and diagnostically) across the country. In terms of diagnoses, it would be particularly helpful to include samples with even greater levels of PD symptoms. PDs were not the primary chart diagnoses for most clients in this study. Nonetheless, the clinicians in the study rated this sample as having considerable elevations on PD pathology. In fact, clinicians rated 45 (83%) of the clients in our sample as having at least one PID-5 scale that was clinically elevated (e.g., > 2.0 on a 0-3 scale) and the average client elevated three scales according to the therapist. This discrepancy between infrequent chart PD diagnoses of PD despite elevated ratings on forma scales is actually quite typical (e. g., Samuel, Anez, Paris, & Grilo, 2014) and echoes studies whereby clinicians' own diagnoses do not match their ratings of individual diagnostic criteria (Morey & Benson, 2016; Morey & Ochoa, 1989). This may suggest that chart diagnoses are themselves reflective of clinicians' under-recognition of PD pathology. In any event, it would be most informative to investigate similar questions in samples that do have PD diagnoses in their charts.

Future studies that explore the agreement between therapists and clients would also benefit from the integration of alternative methods, such as neuroimaging techniques (Hill, Samuel, & Foti, 2016; Lieberman et al., 2016). A focus on more objective, real-world indicators of functioning such as hospitalizations, arrests, self-harm or even treatment outcomes would also be helpful. Roberts and colleagues (2017) recently published a meta-analysis suggesting that personality traits changed substantially in response to interventions, including psychotherapy. A noted limitation was the overwhelming use of self-report questionnaires, raising questions of whether clinicians would see comparable levels of personality change in treatment.

In this regard, longitudinal studies that examine PD ratings over the course of therapy would elucidate the effects of therapy on personality change as well as how agreement unfolds

dynamically over treatment. For example, the length of treatment would likely be quite consequential as there are multiple processes that might increase and decrease agreement. On the one hand, additional sessions would provide the clinician more information about the client, presumably improving the validity of their diagnoses. On the other hand, most of the observed change occurs during the first few months of treatment and so by the time the therapist could be said to know the client reasonably well, there might have been real changes in response to therapy. Another interesting perceptual factor that was suggested by a clinician, was that therapists become invested in their clients and might be more prone to seeing them more optimistically after a stretch of therapy. Thus, a study in well-controlled setting, such as a treatment outcome study, would be valuable for tracking how agreement may shift over time.

Given the relations of personality traits with broad psychopathology, it will also be important to expand this research to examine therapist-client agreement for other forms of psychopathology. There has been a broader shift in descriptive nosology to identify cross cross-cutting dimensions (e. g., HiTOP; Kotov et al., 2017). It would be an interesting extension of this work to investigate how therapists and clients agree on those dimensions.

Conclusions

The present study advances knowledge on the agreement between therapists and their clients for PD pathology by having each party complete parallel forms of a systematic, comprehensive measure of the DSM-5 dimensional traits. This method revealed rank-order agreement for four of the five domains was notably higher ($r = .40$-$.60$) than has been reported in prior studies in the PD literature. This reinforces the psychometric and validity gains of collecting therapist ratings systematically and further suggests that dimensions may yield higher agreement. Perhaps more importantly, this study provided novel information about the mean-

level comparison between the sources. In contrast with concerns about underreporting of PD pathology, clients reported greater pathology than their therapists on almost all 25 traits. This effect was most pronounced for the domain of psychoticism, as it had the weakest rank-order agreement and largest mean-level effect – with clients rating themselves higher on these traits than did their therapists. These findings alleviate concerns about the validity of self-reports, but also raise questions about *how* and *why* clients (and clinicians) provide ratings. Ultimately, more work is necessary to ascertain how sources and methods can be best integrated to arrive at the most effective PD diagnoses.

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Table 1.

Correlations between Client and Therapist Personality Inventory for DSM-5 Domain Ratings.

		Therapist Rating				
		Negative Affectivity	Detachment	Psychoticism	Antagonism	Disinhibition
Client Rating	Negative Affectivity	**.40**	.22	-.15	.01	.30
	Detachment	.34	**.60**	.09	-.02	.20
	Psychoticism	.13	.17	**.16**	.17	.40
	Antagonism	-.02	-.08	.00	**.41**	.31
	Disinhibition	.18	-.11	-.07	.27	**.61**

Note. Bolded = Expected convergent correlations.

Table 2.

Summary of Rank-Order and Mean-Level Analyses of Client and Therapist Personality Inventory for DSM-5 Facet Ratings

	Rank-Order					Mean-Level Comparison							
	Agreement		Discriminant			Client (n = 54)		Therapist (n = 54)					
Facets	r	95% CI	Mdn	Min	Max	M	(SD)	M	(SD)	t (53)	p	d	95% CI
Emotional Lability	.33	[.07, .55]	.03	-.36	.23	1.96	.74	1.52	.71	3.86	<.01	.53	[.24, .81]
Anxiousness	.40	[.15, .60]	.10	-.24	.49	2.03	.74	1.65	.73	3.48	<.01	.47	[.19, .75]
Separation Insecurity	.38	[.12, .59]	.04	-.29	.36	1.42	.86	1.30	.73	1.02	.31	.14	[-.13, .41]
Submissiveness	.33	[.07, .55]	-.05	-.34	.26	1.46	.71	1.28	.62	1.72	.09	.23	[-.04, .50]
Hostility	.47	[.23, .66]	.20	-.17	.42	1.60	.64	1.41	.80	1.81	.08	.25	[-.03, .52]
Perseveration	-.06	[-.32, .21]	.18	-.16	.40	1.53	.62	1.17	.53	3.14	<.01	.43	[.15, .70]
Depressivity	.62	[.42, .76]	.05	-.18	.52	1.55	.79	1.20	.68	3.97	<.01	.54	[.25, .82]
Suspiciousness	.43	[.18, .63]	.17	-.20	.38	1.62	.74	1.48	.63	1.39	.17	.19	[-.08, .46]
Restricted Affectivity	.18	[-.36, .17]	.10	-.30	.26	1.05	.51	1.11	.64	-.69	.49	-.09	[-.36, .17]
Withdrawal	.65	[.46, .78]	.15	-.22	.58	1.66	.72	1.47	.81	2.29	.03	.31	[.04, .58]
Intimacy Avoidance	.30	[.04, .53]	.09	-.22	.26	1.03	.70	.94	.62	.76	.45	.10	[-.16, .37]
Anhedonia	.43	[.18, .63]	.05	-.21	.58	1.58	.74	1.46	.66	1.18	.25	.16	[-.11, .43]
Manipulativeness	.45	[.21, .64]	-.07	-.40	.36	1.21	.75	1.18	.82	.23	.82	.03	[-.24, .30]
Deceitfulness	.27	[.00, .50]	.02	-.24	.23	.93	.65	.95	.72	-.12	.90	-.02	[-.28, .25]
Grandiosity	.29	[.02, .52]	.06	-.26	.32	.88	.59	.79	.68	.88	.38	.12	[-.15, .39]
Attention Seeking	.30	[.04, .53]	.02	-.20	.35	1.17	.70	.99	.76	1.48	.15	.20	[-.07, .47]
Callousness	.57	[.36, .73]	.19	-.12	.52	.77	.55	.86	.65	-1.20	.24	-.16	[-.43, .11]
Irresponsibility	.45	[.21, .64]	.14	-.36	.45	.96	.47	.95	.60	.18	.86	.02	[-.24, .29]
Impulsivity	.46	[.22, .65]	.08	-.26	.36	1.53	.68	1.43	.71	1.06	.29	.14	[-.12, .41]
Distractibility	.32	[.06, .54]	.07	-.25	.38	1.76	.63	1.44	.59	3.27	<.01	.45	[.16, .72]

Risk Taking	.45	[.21, .64]	-.03	-.33	.44	1.44	.62	1.47	.57	-.35	.73	-.05	[-.31, .22]
Rigid Perfectionism	.12	[-.15, .38]	.12	-.28	.35	1.52	.65	.68	.58	7.54	<.01	1.03	[.69, 1.35]
Unusual Beliefs & Experiences	.27	[.00, .50]	.10	-.23	.40	1.26	.64	.44	.56	8.28	<.01	1.13	[.78, 1.46]
Eccentricity	.00	[-.27, .27]	.15	-.22	.44	1.69	.73	.89	.78	5.46	<.01	.74	[.44, 1.04]
Perceptual Dysregulation	.20	[-.07, .44]	.15	-.16	.33	1.22	.70	.52	.45	6.93	<.01	.94	[.62, 1.26]

Note. Mdn = Median discriminant correlation; Min = Minimum discriminant correlation; Max = Maximum discriminant correlation.

Figure 1.

Frequency Distributions of Psychoticism Domain Scores for Therapist and Clients