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Predicting Dropout Using *DSM–5* Section II Personality Disorders, and *DSM–5* Section III Personality Traits, in a (Day)Clinical Sample of Personality Disorders

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Despite the availability of structured treatments for personality disorders (PDs), still 1 in 4 patients drop out of treatment. Knowledge of whether maladaptive personality traits can lead to dropout in psychotherapeutic treatment programs of PDs is important for the purpose of a suitable indication for such treatments, especially in the light of the new alternative model of personality disorders (AMPD), which is used more and more in clinical practice. The current study investigated whether pathological personality traits of the alternative model of personality disorders, as operationalized with the Personality Inventory for *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (PID-5), and dimensional scores of PDs on the Personality Diagnostic Questionnaire-4+, could serve as predictors for dropout in an intensive (day)clinical setting for the treatment of mainly Cluster C and mild Cluster B PDs. The main finding of this study was that high scores on the PID-5 trait scales Perceptual Dysregulation, Unusual Belief and Experiences, Suspiciousness, and Rigid Perfectionism, and low scores on Restricted Affectivity and the Personality Diagnostic Questionnaire-4+ avoidant PD dimensional score, were significantly predictive for dropout from treatment.

Keywords: dropout, personality disorders, personality traits, PID-5, AMPD

Early discontinuation of treatment has been studied in a wide diversity of disorders and treatment settings and with also a variety of predicting variables. Dropout rate varied between around 20% (Swift & Greenberg, 2012; Swift, Greenberg, Tompkins, & Parkin, 2017) or 20% to 60% (Saxon, Barkham, Foster, & Parry, 2017). Meta-analyses showed that dropout rate in adult psychotherapy was moderated or caused by diagnosis, age of the patient, provider level of experience, dropout definition, type of study, depression, format of treatment, number of sessions, and treatment setting (Fernandez, Salem, Swift, & Ramtahal, 2015; Swift & Greenberg, 2012). In borderline personality disorder (PD), meta-analyses show that well-structured psychotherapies have a completion rate of about 63% to 75%, which means that a minimum of one in four patients dropped out of treatment before the full potential benefit of treatment was achieved (Barnicot et al., 2012; Barnicot, Katsakou, Marougka, & Priebe, 2011; McMurran, Huband, & Overton, 2010). Although treatment model or treatment setting did not explain differences in dropout in borderline PDs (Barnicot et al., 2011), commitment to change, the therapeutic relationship, and the trait impulsivity appeared to be predicting factors (Barnicot et al., 2012), as also a history of more suicide attempts (De Panfilis et al., 2011; McMurran et al., 2010; Wnuk et al., 2013). Nonetheless, outcomes strongly depend on the operational definitions of dropout, which are quite diverse (Barrett, Chua, Crits-Christoph, Gibbons, & Thompson, 2008; Charnas, Hilsenroth, Zodan, & Blais, 2010; Swift, Greenberg, Whipple, & Kominiak, 2012). Unfortunately, prediction studies are also characterized by a lack of attempts to replicate findings (Arntz, Stupar-Rutenfrans, Bloo, van Dyck, & Spinhoven, 2015).

Early dropout may have adverse effects, not only for patients themselves but also for other patients and for therapists, for example, reduced service cost-efficiency, waste of limited and valuable clinical resources, and lowered morale. Furthermore, noncompletion was also associated with negative treatment outcome and demoralization (Gunderson et al., 1989; McMur-

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Robert F. Krueger is a coauthor of the Personality Inventory for *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* [PID-5] and provides consulting services to aid users of the PID-5 in the interpretation of test scores. PID-5 is the intellectual property of the American Psychiatric Association, and Robert F. Krueger does not receive royalties or any other compensation from publication or administration of the inventory.

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ran et al., 2010; Priebe et al., 2012; Sandell et al., 1993; Yeomans et al., 1994). Research with the Minnesota Multiphasic Personality Inventory (MMPI)-2/RF Tarescavage, Finn, Marek, Ben-Porath, and van Dulmen (2015) and the Personality Assessment Inventory (PAI; Charnas et al., 2010; Hopwood, Creech, Clark, Meagher, & Morey, 2008; Morey, 1991) showed that demoralization (MMPI-RF/Demoralization scale [RCd]) or motivation (PAI Treatment Rejection Scale) may even be explanatory factors in understanding dropout or score elevations on other scales of these instruments. For instance, Tarescavage et al. (2015) found that low positive emotionality (represented in MMPI-RF/RC2) and high negative emotionality (MMPI-RF/RC7) were associated with dropout when corrected for demoralization (MMPI-RF/RCd).

Dropout and Personality Traits

Studies examining the association between personality traits and dropout from treatment in several mental disorders found that externalizing personality traits were often associated with negative treatment alliance or dropout. Several studies with the MMPI-2/RF showed that scales representing externalizing features (e.g., RC4, RC9, and Agressiveness) predicted premature termination of therapy in a university outpatient group (Anestis, Gottfried, & Joiner, 2015; Patel & Suhr, 2019), in drug treatment (Mattson, Powers, Halfaker, Akeson, & Ben-Porath, 2012), and a domestic violence intervention program (Sellbom, Ben-Porath, Baum, Erez, & Gregory, 2008). Within the externalizing domain, impulsivity was found as a predicting variable in dropout for gambling disorders (Mallorquí-Bagué et al., 2018; Ramos-Grille, Gomà-i-Freixanet, Aragay, Valero, & Vallès, 2015), anorexia nervosa (Huas et al., 2011), and cocaine dependence (Martínez-González, Albein-Urios, Verdejo-García, & Lozano-Rojas, 2014). Also, Fassino, Pierò, Tomba, and Abbate-Daga (2009) found in their review that impulsivity, next to high maturity fear, and low self-directedness and low cooperativeness, was associated with dropout from treatment for eating disorders. Furthermore, low conscientiousness, high novelty-seeking or sensation-seeking were associated with predictors of premature treatment termination, respectively, in gambling disorder (Mestre-Bach et al., 2019; Ramos-Grille, Gomà-i-Freixanet, Aragay, Valero, & Vallès, 2013) and in bulimia nervosa (Watson et al., 2017). Other studies regarding dropout in eating disorders found that those patients were less cooperative (Fassino, Abbate-Daga, Amianto, Facchini, & Rovera, 2003) and less agreeable (Vroling, Wiersma, Lammers, & Noorthoorn, 2016). Also, lower scores on dutifulness and assertiveness were correlated with premature termination of therapy for eating disorders (Högdahl, Levallius, Björck, Norring, & Birgegård, 2016).

Narrowing the scope of our review to the research regarding PDs, it was found that in patients with PD hostility or anger (Arntz et al., 2015; Fassino et al., 2003; Rüsch et al., 2008; Smith, Koenigsberg, Yeomans, Clarkin, & Selzer, 1995; Wnuk et al., 2013), paranoid ideation (Huas et al., 2011), and a latent psychotic personality organization profile (Eurelings-Bontekoe et al., 2009) were linked with premature dropout of treatment. The trait impulsivity was also associated with dropout in (borderline) PD (Bados, Balaguer, & Saldaña, 2007; Black et al., 2009; Farrés et al., 2018; Martino, Menchetti, Pozzi, & Berardi, 2012). Gamache, Savard, Lemelin, Cote, and Villeneuve (2018) found that hostility, envy, and spitefulness were associated with dropout in patients with borderline PD. Moreover, narcissistic features and entitlement appeared to be a risk for discontinuation in this study. Noncompleters of inpatient therapy for PD had significant higher scores on experiential avoidance and trait anxiety in comparison with completers (Rüsch et al., 2008).

In summary, the number of predictors found in our review of the literature appears to be an amalgam of clinical, demographic and trait variables, with impulsivity, and high scores on externalizing personality traits as the most frequently found trait predictors of dropout.

Dropout and the Alternative *DSM–5* Model of Personality Disorders

It is of note that we did not find in our literature search any studies that examined the value of pathological personality traits of the Alternative *DSM–5* Model of Personality Disorders (AMPD; American Psychiatric Association, 2013) in the prediction of dropout of treatment in PDs. The AMPD defines PD as an impairment in personality functioning (Criterion A) and the presence of one or more pathological personality traits (Criterion B). In addition to the classical *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*) categorical model, the AMPD is increasingly being applied in clinical practice. Therefore, understanding the clinical value of the AMPD is important (Hopwood, Mulay, & Waugh, 2019), as well as the further validation of this model through scientific research. In a recent review of research on the AMPD, Zimmermann, Kerber, Rek, Hopwood, and Krueger (2019) indicated the absence of intervention studies with the AMPD and call for studies that identify severity and traits as predictors and moderators of treatment effects. We found one study that used Criterion A of the AMPD to examine the risk for dropout in an inpatient psychotherapy for PDs (Busmann et al., 2019). This study found that low self-functioning was associated with dropout, with a 2.3 higher risk for dropout. In addition, we found one study in which the AMPD pathological personality domain traits were used as predictors of outcome in the treatment of late adolescents with personality pathology (Koster, Laceulle, van der Heijden, de Clercq, & van Aken, 2018). However, this study did not focus on dropout.

The present study examined the associations of pathological personality traits and *DSM*–PDs with premature dropout from treatment. More specifically, we examined whether AMPD personality traits as operationalized with the Personality Inventory for *DSM–5* (PID-5; Krueger, Derringer, Markon, Watson, & Skodol, 2012) and dimensional scores of PDs on the Personality Diagnostic Questionnaire-4 (PDQ-4+; Hyler, 1994) were associated with dropout in a Dutch sample of patients with mainly Cluster C and mild Cluster B PDs in a (day)clinical psychotherapy setting. Our research question sought to answer whether specific traits or specific *DSM*–PDs were corelated with dropout in this sample. Because many possible predictive variables emerged from our literature review, and given the specific treatment setting in which the study took place, we conducted the study as an exploratory study. No assumptions were made in advance.

Method

Procedure

The current study was conducted at the Centre for Psychotherapy, Pro Persona Mental Health Care, the Netherlands. The Centre is a highly specialized center for the treatment of PDs. Most patients already received one or more outpatient treatments for their personality problems or other mental health disorders prior to treatment at this center. Treatment at the Centre takes place on a voluntary basis, patients are referred by their general physician, or by their outpatient psychologist or psychiatrist. Mental health care in the Netherlands is reimbursed by health insurance. The treatment of the Centre differs in intensity (day-clinical treatment of 2 or 4 days a week or clinical treatment of 4 days a week), and theoretic framework: psychodynamic orientation (Lemma, Target, & Fonagy, 2011) or cognitive–behavioral orientation (Farrell & Shaw, 2012). The treatment program combines group psychotherapy with other forms of group therapy (e.g., sociotherapy, art therapy, and psychomotor therapy) in a standard program. The treatment length was standardized at 7 to 9 months. In line with the definition of Swift et al. (2012), dropout was defined as premature termination of treatment within the standardized length of the treatment program, with no progress made or with observed clinical deterioration, and/or when the client unilaterally decided to quit or did not commit to rules within the treatment program (e.g., being on time for session, no abuse of alcohol). Dropout was treated as a binary outcome variable.

Participants

The study was a naturalistic cohort study. All patients were referred to the Centre for an initial evaluation of suitability for inpatient or day clinical psychotherapy for PD. All patients completed a standardized assessment battery before entering intake, including the PID-5 and the PDQ-4+, which were used in the present study. Every patient receiving intake during the period of January 2017 till September 2018 was included in our study. The informed consent was part of the standard screening procedure. Patient selection was based on clinical judgment of an experienced psychologist or psychiatrist aiming to exclude patients who were not suitable for intensive group psychotherapy. The following inclusion criteria were used: (a) patients were between 18 and 60 years old, (b) had one or more significant PD(s) being the main reason for treatment over other possible comorbid mental disorders, and (c) had been referred for psychotherapeutic group treatment. The exclusion criteria included an insufficient command of the Dutch language, organic cerebral impairment, and mental retardation. Further, prominent severe comorbid disorders ("major psychiatric disorders") such as schizophrenia, bipolar disorder, autism, or severe substance abuse are not treated in the Centre. Also, patients with severe Cluster A PDs, severe dissocial personality traits, or severe emotion dysregulation problems (e.g., uncontrolled rage, self-harm, and acute suicidal tendency) are usually not treated in the Centre. Although mild personality traits of this nature may be present (Table 2).

A total of 368 patients were recruited during the pretreatment phase. Of those, between 65% and 68% were women, and the ages ranged from 18 to 63 years. A total of 260 patients (70.7%) started treatment, the remaining 108 patients (29.3%) did not start with treatment for various reasons (DidNotStart [DNS] group; M_{age} 34.7 years, SD = 12.0; 72% woman). Apart from exclusion on basis of abovementioned clinical judgment, patients could have various reasons not to start treatment, such as practical problems (e.g., not being able to combine treatment with work, not able to start in this time, or travel time) or problems to commit emotionally to such an intensive treatment program. From the 260 patients who started treatment, 192 patients (73.8%) completed the whole treatment (completers group; M_{age} 31.0 years, SD = 9.14; 69% woman), 20 patients (7.7%) were still in treatment at the end of the data collection (NotYetFinished group; M_{age} 36.6 years, SD = 12.66; 65% woman), and 48 patients (18.4%) ended the treatment prematurely (Dropouts group; M_{age} 30.0 years, SD = 10.11; 69% woman).

To further specify the reason for dropout, the medical records of these 48 patients were analyzed. It turned out that 46 patients ended the treatment prematurely because of psychological deterioration, commitment problems, or a combination of both. Examples of deterioration were as follows: worsening of eating disorder related behavior, increased suicidality, and relapse in addictive behavior. Commitment problems consisted of noncompliance with treatment agreements, for example, no show or unilateral cancellation of the treatment relationship by the patient. An example of the combination of deterioration and commitment problems was relapse in addictive behavior and breaking our Centre's rules on alcohol consumption. Two patients ended treatment prematurely owing to serious illness of partner and owing to divorce. These two patients were not included in the main analyses. Also, two other patients (Completers) were excluded from the main analyses because they appeared to be extreme outliers on the trait scales Callousness and Grandiosity after the first analysis. In summary, the following numbers of patients were used for the main analyses: 108 DNS group, 260 Starters group, 190 Completers group, 46 Dropouts group.

All patients had one or more diagnosed PD, most of them also had one or more comorbid other mental disorders. Clinical diagnoses were based on the Longitudinal, Expert, All Data standard (Spitzer, 1983). Table 1 shows that Cluster C PDs, borderline PD, and other specified PD were most prominently present. Mood disorders and anxiety disorders were the most frequently diagnosed comorbid mental disorders. Patients completed also the PDQ-4+ (Hyler, 1994). Although the PDQ-4+ is questioned as a useful screener for PD in clinical practice (de Reus, van den Berg, & Emmelkamp, 2013), scores on the PDQ-4+ (Table 2) might provide a characterization of the present sample. Taken together with the clinical diagnoses, it shows that features of the antisocial, narcissistic, and histrionic PD were hardly or not represented in our sample. Cluster A personality traits have been reported to a limited extent by patients (on the PDQ-4+) and may be part of the profile of the diagnosed Other specified PDs or be comorbid to the diagnosed specific PDs.

Measures

PID-5 (Krueger et al., 2012) measures an individual's level of maladaptive personality traits part of the AMPD (American Psychiatric Association, 2013). The PID-5 is a 220-item self-report questionnaire and answers are given on a 4-point re-

Table 1
Clinical Diagnosis of the Different Groups and Total Group Within This Study (N = 368)

Current *DSM–5* diagnosis/disorder[a,b,c]	Did not start (*n* = 108)		Completers (*n* = 192)		Not yet finished (*n* = 20)		Dropouts (*n* = 48)		Total (*N* = 368)	
	n	%	*n*	%	*n*	%	*n*	%	*N*	%
Attention deficit/hyperactivity disorder	1	1	1	1	—	—	—	—	2	1
Autism spectrum disorder	2	1.6	4	1.7	—	—	1	1.2	7	1.5
Mood disorders	18	14.8	18	7.9	5	20.8	11	13.3	52	11.5
Anxiety disorders	11	9.0	10	4.4	—	—	7	8.4	28	6.2
Posttraumatic stress disorder	2	1	1	1	—	—	6	7.2	9	1.9
dissociative disorder	—	—	—	—	—	—	1	1.2	1	1
Eating disorders	3	2.4	1	1	—	—	1	1.2	5	1.1
Obsessive-compulsive disorder	2	1.6	1	1	1	4.1	3	3.6	7	1.5
Other disorders[d]	3	2.4	—	—	—	—	—	—	3	1
Paranoid PD	1	1	—	—	—	—	—	—	1	1
Schizoid PD	—	—	2	1	—	—	—	—	2	1
Schizotypal PD	1	1	—	—	—	—	—	—	1	1
Antisocial PD	—	—	—	—	—	—	—	—	—	—
Borderline PD	14	11.6	31	13.7	1	4.1	10	12.0	56	12.3
Histrionic PD	1	1	1	1	—	—	—	—	2	1
Narcissistic PD	1	1	2	1	—	—	—	—	3	1
Avoidant PD	13	10.7	57	25.2	3	12.5	18	21.6	91	20.0
Dependent PD	5	4.1	6	2.6	—	—	3	3.6	14	3.0
Obsessive-compulsive PD	3	2.4	4	1.7	3	12.5	3	3.6	13	2.8
Other specified PD	40	33.0	87	38.4	11	45.8	19	22.9	157	34.6

Note. PD = personality disorder.
[a] Number of diagnosis, patients could be assigned one or more disorders. [b] Percentage of the total of disorders within a group. [c] In this table 1% = ≤1%. [d] Substance-induced psychotic disorder, somatic symptom disorder, and substance-related disorder.

sponse scale. Items assess the 25 AMPD trait facets that can be grouped into the overarching structure of negative affectivity, detachment, antagonism, disinhibition, and psychoticism. Al-Dajani, Gralnick, and Bagby (2016) reviewed 30 research articles about the PID-5 and found adequate psychometric properties. Although more research is needed in clinical samples to capture a greater range of psychopathology, and with respect to clinical utility of the PID-5, normative data, and effective cutoffs for psychopathology. The present study used the authorized Dutch translation of the PID-5 (van der Heijden, Ingenhoven, Berghuis, & Rossi, 2014). Scale scores on the PID-5 ranged between .29 (Callousness) and 1.96 (Anxiousness), mean score 1.09 (*SD* = .51). Internal consistency values of the trait scales ranged in the present study from .71 (Unusual Beliefs and Experiences) to .92 (Depressivity and Eccentricity), mean Cronbach's α = .84.

Table 2
Means (and Standard Deviations) of Personality Disorder Criteria on Basis of PDQ-scores (N = 360[a])

Personality disorder	Total PDQ-4+ dimensional score[b] *M*	*SD*	Range
Paranoid PD	2.92	1.92	0–7
Schizoid PD	2.89	1.70	0–7
Schizotypal PD	2.95	1.82	0–9
Antisocial PD[c]	0.81	1.82	0–6
Borderline PD	4.71	1.84	0–9
Histrionic PD	1.99	1.61	0–8
Narcissistic PD	1.97	1.41	0–8
Avoidant PD	4.95	1.67	0–7
Dependent PD	3.66	2.09	0–8
Obsessive-Compulsive PD	3.66	1.62	0–8

Note. PDQ = Personality Diagnostic Questionnaire; PD = personality disorder.
[a] Missing: eight cases. [b] There were no statistically significant differences between the different groups within the total sample, and therefore only the dimensional scores of the total group are reported. [c] Criteria A.

The PDQ-4+ (Hyler, 1994; Dutch translation: Akkerhuis, Kupka, van Groenestijn, & Nolen, 1996) is a 99-item self-report questionnaire assessing the 10 PDs of the *DSM–IV-TR*, including the passive aggressive and depressive PDs (both not used in the present study). The items (PD criteria) are listed in a random order. Two validity scales are included to detect fake good responding. Also, a total score, as an index of overall personality disturbance, is calculated. Although the PDQ-4+ is widely used in clinical practice and research, studies showed only moderate diagnostic agreement with other PD measurements (de Reus et al., 2013).

Statistical Analyses

Data were explored for incomplete records. No missing cases or values were found. Means, *SD*s, and Cronbach's αs of PID-5 trait scales and descriptive statistics were calculated. Point biserial correlations were conducted to determine the relationship between PID-5 trait scores and PDQ dimensional scores and the Starters versus DNS group and the Completers versus Dropout group, respectively. All analyses were conducted using IBM SPSS Statistics for Windows, Version 25.0. Armonk, New York.

Results

Table 3 shows that there were significant correlations between DNS/Starters groups and the PID-5 scales Restricted Affectivity ($r_{pb} = -.10$, $p < .05$), Unusual Beliefs and Experiences ($r_{pb} = .14$, $p = .01$), and the PDQ-dimensional score on avoidant PD ($r_{pb} = -.16$, $p < .1$). Lower scores on Restricted Affectivity and on the avoidant PD dimension and higher scores on Unusual Beliefs and Experiences were related to not starting the treatment program. As also can be seen in Table 3, there were no significant associations between PDQ dimensional scores and the Completers versus Dropouts groups. There was a significant correlation between the Completers/Dropouts groups and PID-5 scales Perceptual Dysregulation ($r_{pb} = .14$, $p = .04$), Rigid Perfectionism ($r_{pb} = .18$, $p < .01$), and Suspiciousness ($r_{pb} = .13$, $p = .05$). Higher scores on these PID-5 scales were associated with premature termination of the treatment program.

Discussion

This study aimed to identify pretreatment predictors of dropout in a (day)clinical group psychotherapy treatment for PD. In the present study, there were two moments of possible dropout: directly after intake or during treatment. The main objective was to explore whether AMPD pathological personality traits, as operationalized with the PID-5, and dimensional scores of *DSM*–PDs, as operationalized with the PDQ-4+, were able to predict dropout after intake or during treatment. In the present study, 29.3% of the patients did not start treatment after intake, and 18.4% dropped out during treatment, which is comparable with other studies concerning dropout in clinical populations (Kröger et al., 2006; Rüsch et al., 2008). It was found that five PID-5 trait scales and one PDQ-4+ PD dimensional score were associated with dropout. We will discuss findings per scale/dimension in the following text.

First, we found that having higher scores on PID-5 scales which are related to psychotic vulnerability were associated with dropout. More specifically, having high scores on the PID-5 traits Perceptual Dysregulation and Unusual Beliefs and Experiences, both facets of the domain Psychoticism, were significantly associated with dropout, as were increased scores on the Suspiciousness scale of the PID-5. Although the trait suspiciousness is not part of the AMPD Psychoticism domain, from a clinical point of view, distrust can be seen as an aspect of psychotic vulnerability. We found two other studies showing that traits within the Psychoticism domain predicted dropout. Huas et al. (2011) found that paranoid ideation was element of a specific profile predicting dropout in inpatient treatment, and Eurelings-Bontekoe et al. (2009) found that a so called latent psychotic personality organization profile predicted dropout in cognitive-behavioral therapy for Axis I disorders. In our view, high levels of cognitive or perceptual dysregulation and/or suspiciousness might interfere with an effective therapeutic alliance, leading to feelings of unsafety, worsening of psychological symptoms and causing early dropout. We therefore assume that paranoid ideas and psychotic vulnerability will be triggered faster in an intensive inpatients group psychotherapeutic treatment. High levels of cognitive dysregulation need greater emphasis on behavioral interventions in contrast to treatments (as with the Centre) that impose emotional strain on the patient owing to the expectation of change (Livesley, Dimaggio, & Clarkin, 2016). We suppose that the PID-5 scale Unusual Beliefs and Experiences mainly represents core schizotypal symptoms, that is, disturbances in the perception of reality, as a result of which this group was already identified at intake and therefore not selected for this intensive psychotherapeutic treatment. Because the PID-5 trait scale Perceptual Dysregulation also measures dissociative features, we further think that patients with comorbid trauma or PTSD who deteriorated due to high psychotherapeutic pressure were also part of this dropout group. It is of note that in our study almost all patients with PTSD or a dissociative disorder dropped out prematurely (Table 1). Screening for severe PTSD symptoms and psychotic vulnerability in the pretreatment phase of intensive (day-clinical) psychotherapy programs seems therefore recommended.

Next, we found a significant association between increased scores on the PID-5 scale Rigid Perfectionism and dropout. Because rigidity is not mentioned as a predictor of premature termination of treatment in any of our reviewed studies, we consider this as an artifact of our sample. It seems that for instance a core rigid perfectionistic belief "that there is only one right way to do things"

Table 3
Point-Biserial Correlations Between Did Not Start Treatment Group vs. Started Treatment Group (n = 368) and Between Completers Group vs. Dropouts Group (n = 236)

PID-5 trait scales	DNS × Starters (*n = 368*)	Completers × Dropouts (*n = 236*)	PDQ Dimensional scales	DNS × Starters (*n = 368*)	Completers × Dropouts (*n = 236*)
Perceptual Dysregulation	.00	**.14**	Paranoid PD	−.01	.11
Restricted Affectivity	**−.10**	.02	Schizoid PD	−.04	.09
Rigid Perfectionism	.01	**.18**	Schizotypal PD	.04	−.03
Suspiciousness	−.04	**.13**	Antisocial PD	.05	.09
Unusual Beliefs and Experiences	**.14**	.00	Borderline PD	.02	.13
			Histrionic PD	.04	−.02
			Narcissistic PD	.06	.05
			Avoidant PD	**−.16**	.06
			Dependent PD	.05	−.02
			Obsessive-Compulsive PD	.05	.03

Note. PID-5 = Personality Inventory for *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. DNS = Did Not Start treatment program; Starters = Started treatment program; Completers = Completed whole treatment program; Dropout = Premature terminated treatment program; PD = personality disorder. Significant correlations ($p \leq .05$) are in bold. Starters = 0, DNS = 1; Completers = 0, Dropouts = 1.

(American Psychiatric Association, 2013, p. 1033) might lead to resistance to psychotherapeutic change and to premature termination of treatment. This finding is interesting because an amount of studies found that precisely the opposite trait of rigid perfectionism, impulsivity, was a predictor of dropout in several types of patients. (Bados et al., 2007; Black et al., 2009; Farrés et al., 2018; Fassino et al., 2009; Huas et al., 2011; Mallorquí-Bagué et al., 2018; Martínez-González et al., 2014; Martino et al., 2012; Ramos-Grille et al., 2015). Again, potential explanations can be sought in specific characteristics of our sample inherent to the patient selection as described in the method section: externalizing traits and impulsivity were not common in our sample.

Finally, the present study found that low Restricted Affectivity and low dimensional scores of avoidant PD were associated with not starting treatment. These patients were not selected for treatment after intake or did not start the treatment themselves. In the spirit of the personality profiles as recently described by Clark et al. (2020) and Mullins-Sweatt et al. (2020), these would be the patients with impaired self and interpersonal functioning in combination with low Detachment. These patients tend to be interpersonally intense, showing histrionic and dependent PD, borderline and narcissistic exhibitionism, excitement seeking, antisocial PD, impulse control problems and substance abuse (free after Mullins-Sweatt et al., 2020, p. 129–130). It seems that insofar as patients with externalizing personality traits still were referred to the Centre, they were not selected after intake, and at that time became a dropout from the treatment. It is noteworthy that no other dimensional PDQ-4+ score, except low avoidant PD, showed an association with the distinguished groups. We think that this finding fits with the well-documented problems of the categorical model for personality disorders, resulting in the development of dimensional alternative models as the AMPD (American Psychiatric Association, 2013) and the Hierarchical Taxonomy of Psychopathology (Kotov et al., 2017).

Several limitations of the present study deserve comment. First, it is noteworthy that the correlations we found were small ($r <$ .20), which is comparable to correlations or effect sizes of other corresponding studies (Anestis et al., 2015; Hopwood et al., 2008; Sellbom et al., 2008), but limits the clinical utility. This will be owing to the fact that the individual scales and dimensions are part of a much wider range of factors that determine the course of treatment. The significant predictive indicators described here should therefore not be placed in isolation, but in the context of this broader perspective. Another limitation concerns the nature of our sample. We excluded persons with severe externalizing disorders and higher levels of impulsivity. Caution should therefore be made when generalizing the conclusions of this study in different patient populations. On the other hand is our sample characterized by its high homogeneity inherent by the selection of patients. Selection of patients with Cluster C and mild Cluster B pathology (borderline PD without dissocial, narcissistic of schizotypal features), or in other words with a neurotic or high/intermediate level borderline personality organization (Kernberg, 1984), for a specific intensive treatment program, is not uncommon in mental health care, at least not in the Netherlands. A strength of this study was a high degree of homogeneity and intensity of intervention, including an average dropout rate. Another advantage was the use of personality trait facets, as the vast majority of prediction studies have been on the domain trait level, and potentially obscuring underlying facet level associations.

In conclusion, this study examined whether AMPD pathological personality traits and *DSM*–PD dimensional scores could predict dropout of treatment in a (day)clinical group psychotherapy for PD. To our knowledge, it is the first study in which AMPD traits were used in a naturalistic clinical setting to predict premature abandonment of treatment. Assessment of personality traits that significantly predict dropout, like in our study the high scores on rigid perfectionism an within the domain of psychoticism and low scores in the domain of detachment, might help treatment planning and, ultimately, might improve completion rates in the treatment of PDs.

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