

**The Efficacy of Group Psychotherapy for Adults with Perfectionism: A Randomized  
Controlled Trial of Dynamic Relational Therapy versus Psychodynamic Supportive Therapy**

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**Journal of Consulting and Clinical Psychology (in press)**

**Author Note**

This research was registered with the ISRCTN Registry (#16141964) and was supported by grants from the Social Sciences and Humanities Research Council of Canada (SSHRC; 410-2015-0412 and 410-2021-0360), the Society for Psychotherapy Research, and

the American Group Psychotherapy Association awarded to the first author. With respect to author contributions, Paul L. Hewitt played a lead role in the conceptualization, funding acquisition, methodology, administration, training, supervision, and writing. David Kealy played a lead role in conceptualization, methodology, training and supervision, and writing. Samuel Mikail played a key role in research conceptualization, training and supervision. Martin M. Smith conducted analyses and was extensively involved in writing and editing. Chang Chen participated in consultation, training, and methodology. Ingrid Sochting played a major role in clinical consultation and Sabrina Ge played a major role in administration and data collection as well as editing. Giogio Tasca was involved in methodological consultation. Gordon Flett was involved in conceptualization and editing, and Ariel Ko was involved in administrative tasks, data curation, and editing. This paper represents original material that is not under review at another publication. Nor do the authors have any conflicts of interest with respect to the current work. Data and study materials are available from the corresponding author upon request.

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### **Public Significance Statement**

This study found evidence supporting the efficacy of psychodynamically informed treatments for perfectionism, a pernicious vulnerability factor in many disorders and dysfunctions. Results also

indicated that dynamic relational therapy was superior to psychodynamic supportive therapy for most components of perfectionism and work and social adjustment. The findings support the importance of psychodynamic group psychotherapy approaches, and dynamic relational therapy in particular, in treating perfectionism.

### Abstract

**Objective:** This randomized controlled trial investigated the efficacy of dynamic relational group therapy (DRT) relative to group psychodynamic supportive therapy (PST) in treating perfectionism and improving psychological functioning. **Hypothesis:** Psychodynamically informed therapies, particularly DRT, will be efficacious in treating perfectionism and functioning outcomes. **Method:** Based on a comprehensive conceptualization of perfectionism, 80 community-recruited, highly perfectionistic individuals were randomly allocated to 12 sessions of group DRT ( $n = 41$ ; 5 groups) or group PST ( $n = 39$ ; 5 groups). Patients completed measures of trait perfectionism, perfectionistic self-presentation, perfectionistic cognitions, symptom distress, life satisfaction, and work and social adjustment at pre-, mid-, and post-treatment and six months post-treatment. **Results:** Multigroup latent growth curve modeling revealed significant ( $p < .05$ ) decreases in all perfectionism components and improvements in all functioning outcomes from pre-treatment to six-month follow-up in both DRT and PST. Likewise, analyses revealed substantial reliable improvement across conditions for all perfectionism components. Lastly, moderate-to-large between-group differences favoring DRT over PST were found for self-oriented perfectionism, perfectionistic self-promotion, nondisplay of imperfection, nondisclosure of imperfection, and work and social adjustment. **Conclusion:** Findings provide evidence for the use of psychodynamic approaches in the treatment of perfectionism and support the relative efficacy of DRT for components of perfectionism.

*Keywords:* perfectionism, randomized controlled trial, dynamic relational therapy

## **The Efficacy of Group Psychotherapy for Perfectionism: A Randomized Controlled Trial of Dynamic Relational versus Psychodynamic Supportive Treatment**

There is increasing recognition of the importance of developing and evaluating psychotherapies that address core personality vulnerability factors rather than focusing solely on symptoms of specific disorders (see Blatt et al., 2010; Hewitt et al., 2008; Shafran & Mansell, 2001). There is also accumulating evidence that psychodynamically informed group treatments, such as dynamic relational therapy (DRT; Hewitt et al., 2015, 2017; also see Lowyck et al., 2017), show promise in effecting clinically reliable and lasting changes for perfectionism, particularly changes in the deep trait and relational features of perfectionism (Hewitt et al., 2015, 2019). Hence, our study's overarching goal was to evaluate the efficacy of two psychodynamically informed group therapies in treating perfectionism and the associated symptoms and impairment using a randomized controlled design with a focus on the relative efficacy of an interpretive, dynamic relational, process-oriented group therapy.

### **The Comprehensive Model of Perfectionistic Behavior**

Over the past 35 years, it has been argued and empirically demonstrated that perfectionism is a broad and multidimensional personality vulnerability for various disorders and dysfunctions (see Hewitt, 2020; Smith et al., 2022). There are numerous conceptualizations of perfectionism (e.g., Frost et al., 1990; Dunkley et al., 2003; Shafran et al., 2002) and similar personality configurations (e.g., Blatt & Zuroff, 1992) that focus on elements (e.g., self-related attitudes) of the broad perfectionism personality. For example, Blatt and Zuroff's (1992) model of a self-critical personality configuration overlaps descriptively with elements of perfectionism

and focuses on standards and self-criticism in the achievement domain, most specifically with respect to vulnerability to depression.

The current work is based on the Comprehensive Model of Perfectionistic Behavior (CMPB; Hewitt et al., 2017), assessing three over-arching components: (1) perfectionism traits, (2) interpersonal expression of perfectionism, and (3) intrapersonal (or self-relational) expression of perfectionism. The first CMPB component comprises stable and consistent trait dimensions that drive and energize the requirement of perfection. Specifically, Hewitt and Flett (1991) identified three trait dimensions: *self-oriented perfectionism* (i.e., the requirement of perfection for oneself), *other-oriented perfectionism* (i.e., the requirement of perfection for others), and *socially prescribed perfectionism* (i.e., the perception that others require perfection of oneself). These dimensions are intercorrelated, but each contributes uniquely to vulnerability and play respective roles in presenting unique treatment challenges (see Hewitt et al., 2018).

Concerning the second CMPB component, Hewitt et al. (2003) proposed that perfectionistic behaviors expressed in the interpersonal domain reflect an individual's drive not to be perfect but to appear perfect to others. Namely, they described three perfectionistic self-presentational styles or facets that reflect the interpersonal expression of one's purported perfection, including *perfectionistic self-promotion* (i.e., promoting and proclaiming oneself as perfect), *nondisplay of imperfection* (i.e., concealing overt displays of any imperfect behavior), and *nondisclosure of imperfection* (i.e., not disclosing or verbally revealing any imperfection).

Finally, with respect to the third CMPB component, there is an intrapersonal or self-relational component of perfectionism that involves the internal dialogue an individual has with the self. We suggested this dialogue involves not only automatic perfectionistic self-statements and thoughts (Flett et al., 1998) but also automatic critical and recriminatory self-

statements (Hewitt et al., *in prep*), somewhat akin to self-criticism (Blatt & Zuroff, 1992).

Research has shown the relative independence of these CMPB components and their pernicious nature for adults, adolescents, and children (Flett & Hewitt, 2022; Hewitt et al., 2017; Smith et al., 2018).

As a multifarious personality variable, various investigators have asserted that perfectionism merits being an essential focus of treatment. First, perfectionistic behavior can act as a core vulnerability (Hewitt & Flett, 2002) or transdiagnostic factor (Bieling et al., 2004; Shafran & Mansell, 2001) that influences the onset and maintenance of various disorders and dysfunctions. Indeed, self-oriented perfectionism often acts as a vulnerability factor in unipolar depression and chronic depressive symptoms (Enns & Cox, 1999; Hewitt & Flett, 1993; Hewitt et al., 1996, 1998, 2022; Smith et al., 2016), anorexia nervosa (Bastiani et al., 1995) and early death (Fry & Debats, 2009). Similarly, other-oriented perfectionism is associated with significant personality, marital, sexual, and other relationship dysfunctions (e.g., Haring et al., 2003; Stoeber, 2014), while socially prescribed perfectionism is associated with suicide ideation, risk, and attempts in both child and adult samples (Flett et al., 2022; Hewitt et al., 2017; O'Connor, 2007; Smith et al., 2018). Second, evidence suggests trait and self-presentational components of perfectionism interfere with therapeutic processes and outcomes (e.g., Blatt et al., 1995; Hewitt et al., 2020), foster negative help-seeking attitudes and fears of psychotherapy (Dang et al., 2020), and adversely impact the therapeutic alliance (Hewitt et al., 2021; Shahar et al., 2004).

### **Research on the Treatment of Perfectionism**

Given the deleterious impact of perfectionism on psychological health and treatment process and outcome, various therapies have been evaluated as to whether they effect meaningful changes in perfectionism. Treatments that focus on symptom reduction without addressing

perfectionism *per se* tend not to reduce perfectionism (e.g., Ashbaugh et al., 2006; Blatt et al., 2010). And though cognitive behavioral therapy for perfectionism (CBT; Shafran et al., 2002) appears promising for reducing perfectionism-related attitudes (see Galloway et al., 2022), it appears to have a mixed impact on trait perfectionism (see Arpin-Cribbie et al., 2012; Radhu et al., 2012; Riley et al., 2007). Accordingly, the continued development of treatments specifically intended to address the deeper relational elements of perfectionism is needed. Moreover, we have argued that psychotherapies focusing on interpersonal factors, especially underlying relational needs, effectually treat all perfectionism components (e.g., Cheek et al., 2018). Hence, over the past 30 years, Hewitt and colleagues developed, evaluated, and refined DRT for perfectionism (Hewitt et al., 2015, 2017, 2019). This formulation-driven treatment focuses on the underlying self- and other-relational developmental dynamics that contribute to and maintain perfectionism (Hewitt et al., 2017). However, what sets DRT apart from other therapies, such as psychodynamic supportive therapy (PST; Winston et al., 2019), is its emphasis on promoting insight regarding the self- and other-relational underpinnings of perfectionism, ‘here-and-now’ interventions, interpretations, ruptures and repairs, and, in group therapy, interventions involving interactions among patients (Hewitt et al., 2017; Lo Coco et al., 2019).

Hewitt and colleagues recently evaluated a 10-session group DRT for perfectionism using a non-randomized design involving a sample of community-recruited highly perfectionistic patients (Hewitt et al., 2015), including a four-month follow up. Findings obtained via multi-level modeling (MLM) after correcting for group dependence revealed that all CMPB components decreased significantly with large effect sizes. Moreover, except for other-oriented perfectionism, participants in the DRT condition ( $N = 53$ ) had



significantly lower CMPB scores than participants assigned to the waitlist ( $N=18$ ). Similarly, relative to the waitlist, at post-treatment, the DRT condition had significantly lower scores on measures of depression, anxiety, and interpersonal problems relative to the waitlist. Furthermore, reductions in specific perfectionism components predicted reductions in specific symptoms, underscoring the importance of specifically targeting personality vulnerabilities. Lastly, secondary analysis revealed largely the same findings when informant ratings of patients' perfectionism were used as outcomes (Hewitt et al., 2019). These findings converge to suggest that DRT may be effective in reducing trait, interpersonal, and intrapersonal elements of perfectionism as well as symptoms and dysfunctions. Yet, the efficacy of DRT relative to an alternative bona fide treatment is undetermined. Hence, it is unclear whether changes in perfectionism associated with DRT are attributable to interventions and processes specific to DRT as opposed to factors shared with or specific to other psychotherapeutic treatments.

### **Present Study**

We used a randomized controlled design to compare two psychodynamic treatments: an exploratory/interpretive therapy (DRT) and an established supportive therapy (i.e., psychodynamic supportive therapy; PST; Winston et al., 2019) in the treatment of perfectionism. We assessed all components of the CMPB, as well as psychiatric symptoms, life satisfaction, and work and social adjustment as outcome variables<sup>1</sup> at pre-, mid-, and post-treatment and six-

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<sup>1</sup>We had included the Inventory of Interpersonal Problems (IIP; Horowitz et al., 1988) in the ISRCTN Registry as an outcome variable but due to incorrect items included in the pre-treatment and session 6 assessments this measure was dropped. The Satisfaction with Life Scale (Diener et al., 1985) and the Work and Social

month follow-up.<sup>2</sup> Given substantial meta-analytic evidence supporting the efficacy of PST (e.g., Barth et al., 2016) and indications of the importance of using supportive techniques and approaches in the treatment of perfectionism (e.g., Greenspon, 2014; Halgin & Leahy, 1989), we selected it as our active comparator. The use of supportive techniques to facilitate corrective emotional experiences is the focus of supportive treatment (Book, 1998; Leibovich et al., 2018; Rockland, 1989; Zilcha-Mano et al., 2021), and these principles are theorized to be salient in effecting change in patients with perfectionism (Ashby et al., 2005; Greenspon, 2014; Halgin & Leahy, 1989). Moreover, because DRT and PST are both rooted in psychodynamic principles, they share common elements, such as an emphasis on the therapeutic alliance, but differ in their use of exploratory/interpretive interventions. As such, using PST as the comparator allowed us to control for variance attributable to therapeutic techniques shared by DRT and PST. This, in turn, enabled us to evaluate whether the unique mechanisms at the core of DRT are more efficacious than those at the core of PST in reducing perfectionism and improving functioning outcomes. We hypothesized that both treatments would significantly reduce perfectionism and improve functioning outcomes, but that DRT would do so to a greater degree than PST.

## Method

### Participants

A total of 80 patients (21 men and 58 women, 1 nonbinary) were randomly allocated to either DRT ( $n = 41$ ) or PST ( $n = 39$ )<sup>3</sup>. All patients were blind to their treatment condition and

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Adjustment Scale (Mundt et al., 2002) were added as measures post-registration prior to commencing treatment. All CMPB components and the BSI were primary outcomes in the pre-registration report.

<sup>2</sup>The follow-up period was chosen based on evidence that shorter term psychodynamic psychotherapies lead to improvements in general psychopathology from post-treatment to 6-months follow-up (Driessen et al., 2015).

<sup>3</sup>We deviated from the pre-registration estimate of a sample of 60. After completion of 8 groups, we had a sample of 67 (59 completers). To ensure sufficient power and reliability to evaluate group dependence (Tasca et al., 2009) we ran two additional groups, which resulted in a final sample of 10 groups composed of 80 patients (70 completers).

attended an initial pre-treatment group orientation. Ten patients (i.e., four from DRT and six from PST) dropped out after commencing treatment (see Figure 1 for dropouts). As such, 37 patients completed the DRT, 33 patients completed the PST, and 56 patients (29 in the DRT and 27 in the PST) completed the follow-up assessment. Demographic information is in Table 1.

Both treatment conditions were focused not on specific symptoms or diagnoses *per se* but on perfectionism as a transdiagnostic personality factor. As such, structured diagnostic interviews were not conducted. To characterize the clinical nature of our sample, the means of the Personality Assessment Inventory (Morey, 1991) clinical scale scores and the number of patients scoring above the clinical cut-offs are in Supplemental Material A. Overall, 65 of the 80 patients had clinically elevated scores on at least one PAI subscale at the initial assessment. Of the total sample ( $N = 80$ ), 72 patients had previously sought treatment for psychological problems, with ten having received inpatient treatment. Lastly, 31 patients were receiving psychotherapy at pre-treatment and agreed to suspend this treatment during their participation.

### **Group Therapy Formats**

#### ***Dynamic-Relational Treatment***

The DRT group approach combines critical components of both interpersonal and psychodynamic group psychotherapies (see Hewitt et al., 2017). The intervention focuses on the relational and developmental underpinnings, relational impact in the here and now of the group, and underlying processes of perfectionism rather than focusing directly on reducing the perfectionistic behaviors (e.g., negative evaluations, expectations) or extant symptoms. An emphasis is on addressing relational patterns that are manifested in interactions among group members as well as those described by members within the context of other important relationships, including one's relationship with oneself. Group members are encouraged to

explore their relationships and experiences within the group during sessions. The therapists promote the expression of affect and interpersonal feedback among members and provide interpretations of group processes, including transference and ruptures within the group. These interventions are then used to explore and challenge self-limiting interpersonal dynamics for patients. A particular emphasis is on interpretively linking perfectionism with motives for creating safety or defending against perceived or actual abandonment, rejection, criticism, intimacy, conflict and tension, or the harsh critical relation with self. Interpersonal dynamics are interpretively addressed throughout the sessions focusing on termination in the latter sessions.

### ***Psychodynamic Supportive Treatment***

Concerning the PST condition, the main objective is to improve patients' immediate adaptation to their life situations and difficulties arising from perfectionism. PST (Rockland, 2003) draws upon psychodynamic principles in emphasizing the supportive region of a supportive-expressive spectrum of interventions and is based on group delivery of supportive psychotherapy and can be adapted for specific problem areas (e.g., Piper et al., 2011; Winston et al., 2019). PST for perfectionism aims to help patients adopt realistic appraisals of their abilities, goals, and social environment. This approach assumes that providing support, empathic understanding, and reinforcement of adaptive problem-solving can help patients achieve improvements in perfectionistic behavior and psychological functioning (e.g., Greenspon, 2014; Halgin & Leahy, 1989). As such, in the PST condition, therapists attempted to create a climate of support wherein patients could share their experiences and feelings and receive praise for their efforts at coping. Empathic validation and direct support were provided by the therapists and promoted among group members by focusing on inquiring and clarifying comments and validating and encouraging adaptive emotional expression and coping efforts. Although

intragroup commentaries among patients were encouraged, therapists refrained from interpreting these intragroup interactions.

### ***Therapists, Supervision, and Adherence***

Each group was assigned, based on availability, two co-therapists. Three male and six female senior-level Ph.D. students in clinical ( $n = 5$ ) or counseling psychology ( $n = 4$ ) served as co-therapists. All therapists had, on average, 5.4 years of supervised clinical experience, and all had completed a psychodynamic clinical practicum as a part of their training. The therapists conducting the DRT were trained by PLH and SFM, who developed DRT (Hewitt et al., 2017) and have extensive experience in conducting and researching DRT. The therapists were provided weekly supervision by PLH and SFM, who reviewed all DRT sessions via video recordings and conducted 90-minute weekly supervision sessions to ensure treatment fidelity. The therapists conducting PST were trained by DK, an expert with extensive experience in conducting and researching supportive psychotherapy (see Kealy et al., 2019; Rasmussen & Kealy, 2020). Therapists were provided 90-minute weekly supervision sessions in PST by DK, who reviewed all sessions via video recordings to ensure treatment fidelity. One therapist who had conducted PST groups also was trained and completed one DRT group. All therapists were informed that we anticipated that both treatments would be effective for the treatment of perfectionism.

Five therapists, and one senior clinical psychology student, provided adherence ratings for sessions three, six, and eleven using the Interpretive and Supportive Technique Scale (Ogrodniczuk & Piper, 1999). Raters did not rate their own sessions. Item-level inter-rater reliability across sessions three, six, and eleven was adequate for the interpretative technique subscale (.70) and excellent for the supportive technique subscale (.93). Consistent with the treatment models, interpretative techniques were used more in DRT ( $M = 42.3$ ;  $SD = 10.7$ ) than

PST ( $M = 27.9$ ;  $SD = 16.9$ ):  $t(18) = 2.28$ ,  $p = .035$ . In contrast, supportive techniques were used less in DRT ( $M = 8.9$ ;  $SD = 2.3$ ) than in PST ( $M = 27.8$ ;  $SD = 16.0$ ):  $t(18) = -3.69$ ,  $p = .002$ .

Patients indicated high ratings of treatment credibility and trust in the effectiveness of the treatment, and these ratings did not differ between DRT and PST (see Supplemental Material B).

## Measures

### ***Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991)***

The MPS is a 45-item scale that assesses the first CMPB trait component with three trait dimensions, namely, *self-oriented perfectionism* (e.g., “When I am working on something, I cannot relax until it is perfect”), *other-oriented perfectionism* (e.g., “I have high expectations for people who are important to me”), and *socially prescribed perfectionism* (e.g., “I feel that people are too demanding of me”) using a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores reflect greater trait perfectionism. Extensive evidence of the reliability and validity of the subscales in clinical and community samples has been reported (Hewitt & Flett, 1991, 2004). For example, the subscales demonstrate internal consistency and concurrent and divergent validity in clinical samples and are associated differentially with clinicians’ ratings (Hewitt et al., 1991). Cronbach’s alphas were .82 for self-oriented, .87 for other-oriented, and .89 for socially prescribed perfectionism for the total sample. See Hewitt et al. (2017) for normative data.

### ***Perfectionistic Self-Presentation Scale (PSPS; Hewitt, et al., 2003)***

The PSPS is a 27-item measure that assesses the second CMPB component of perfectionistic self-presentation with three subscales. Using a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*), patients indicate the degree of agreement with statements including “it is very important that I always appear to be on top of things” (*perfectionistic self-promotion*), “it would be awful if I made a fool of myself in front of others”

(*nondisplay of imperfection*), and “I should solve my own problems rather than admit them to others” (*nondisclosure of imperfection*). The PSPS subscales show good internal consistency and are correlated with but are distinct from measures of trait perfectionism (Hewitt et al., 2003). Additional validity is demonstrated with strong correlations between ratings of subjects by peers and therapists with subjects’ self-ratings (Hewitt et al., 2003). Cronbach’s alphas were .86 for perfectionistic self-promotion, .81 for nondisplay, and .83 for nondisclosure of imperfection in the total sample. See Hewitt et al. (2017) for normative data.

***Perfectionism Cognitions Inventory (PCI; Flett et al., 1998)***

The PCI is a 25-item measure of the third CMPB component assessing automatic thoughts or self-statements reflecting perfectionistic themes. Using a 5-point Likert scale from 0 (*not at all*) to 4 (*all of the time*), patients indicate the frequency with which they have experienced automatic perfectionistic thoughts during the past week (e.g., “I should be perfect,” “I have to be the best,”), with higher scores reflecting a greater frequency of automatic perfectionistic cognitions. Evidence of the reliability and validity of the PCI, including its incremental validity over other perfectionism measures, is in Flett & Hewitt (2015). Cronbach’s alpha for the PCI was .86 for the total sample. See Hewitt et al. (2017) for normative data.

***Brief Symptom Inventory (BSI; Derogatis, 1993)***

The BSI is a 53-item measure assessing nine symptom dimensions, namely, somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Patients rate items on a 5-point scale from 0 (*not at all*) to 4 (*extremely*), with higher scores reflecting greater symptom distress. The BSI has good internal consistency and reliabilities and good convergent, discriminant,

and construct validity in clinical populations. The Global Severity Index (GSI) was used as a measure of the overall psychological distress (Derogatis & Melisaratos, 1983). The GSI shows excellent stability and is considered the most sensitive measure of change in distress with established clinical norms (Derogatis & Melisaratos, 1983). Cronbach's alpha was .94 for the total sample.

***Satisfaction With Life Scale (SWLS; Diener et al., 1985)***

The SWLS is a 5-item measure of subjective global life satisfaction. Using a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*), patients indicate their degree of agreement with statements such as “in most ways my life is close to my ideal” and “I am satisfied with my life.” Higher scores reflect greater life satisfaction. The SWLS has been shown to have favorable psychometric properties, with high internal consistency, temporal reliability and construct validity based on its relationships to other measures of subjective well-being (Diener et al., 1985). The SWLS has also demonstrated sufficient sensitivity to changes in life satisfaction over the course of a clinical intervention where norms are available (Pavot & Diener, 1993). Cronbach's alpha for the SWLS was .87 for the sample.

***Work and Social Adjustment Scale (WSAS; Mundt et al., 2002)***

The WSAS is a 5-item measure assessing the impact of mental health difficulties on ability to function in work and social domains. Using a 9-point scale from 0 (*not at all*) to 8 (*very severely*), patients indicate how much their problem with perfectionism affected their ability to carry out certain day-to-day activities in ability to work, home management, social leisure, private leisure, and close relationships (e.g., “Because of my perfectionism, my ability to form



and maintain close relationships with others, including those I live with, is impaired”).

Higher scores reflect greater impairment. The WSAS has excellent reliability, is sensitive to change in treatment, distinct from psychiatric symptoms and has normative data (Mundt et al., 2002; Zahra et al., 2014). Cronbach’s alpha was .79 for the total sample.

### **Procedure**

The study received ethical approval from University of British Columbia’s Behavioral Research Ethics Board. Patients were recruited by social media and advertisements in Vancouver, Canada, advertising a group treatment program for adults experiencing problems with perfectionism. A brief description of perfectionism and its negative outcomes (e.g., mental health issues, relationship problems) was provided as well as contact information to determine eligibility for the treatment via the phone screen, and, for those preliminarily eligible, a complete psychological assessment. As displayed in Figure 1, 270 individuals took part in the phone screen to rule out current psychosis or other severe acute pathology, non-fluency in English, the inability to commit to 12 weekly therapy sessions, and to confirm that the person’s difficulties actually involved perfectionism (see Hewitt et al., 2015). A total of 170 participants attended the assessment portion with an initial clinical interview and extensive psychological testing, including the PAI (Morey, 1991), along with measures of perfectionism and other variables (e.g., symptom distress). Test and interview results were used to determine each person’s eligibility and, for those selected, adopted as pre-treatment scores of perfectionism, symptom distress, life satisfaction, and work and social adjustment. Participants who scored a minimum of one standard deviation above the normative means established for community adults (see Hewitt & Flett, 2004) for at least one perfectionism component were invited to participate. Participants were excluded if they exhibited acute severe pathology (e.g., current suicidality or active

psychotic symptoms), were unwilling or unable to disclose personal information in the interview, or never had any close relationship. Consequently, 90 individuals were excluded and referred elsewhere, leaving 80 participants.

Patients were assigned randomly using computer-generated random numbers to either the DRT or the PST condition after meeting inclusion/exclusion criteria and before the pre-treatment assessment. The clinicians conducting the assessment were blind to group assignment. All patients completed a pre-group preparation session to enhance their engagement in treatment by providing information about perfectionism, group therapy, and maximizing potential benefits from the treatment (MacKenzie, 1990; Tasca et al., 2021). Additionally, all patients were informed that both treatments were expected to be effective. The pre-group session was held one week before the commencement of therapy, and the closed 1.5-hour therapy sessions were held weekly for 12 consecutive weeks. There were ten separate groups (i.e., five DRT and five PST) with seven-to-ten members in each group. The average number of sessions attended was 11.41 ( $SD = 0.90$ ; range = 9 to 12) for the DRT and 11.30 sessions ( $SD = 0.98$ ; range = 9 to 12) for the PST. The two group therapy conditions did not differ on the average number of sessions attended,  $F(1,68) = 0.21, p = .650$ .

A group commenced once a minimum of 8 participants were available. Besides completing pre-treatment measures of perfectionism, symptom distress, life satisfaction, and work and social adjustment, patients completed identical measures after the 6<sup>th</sup> (i.e., mid-treatment) and 12<sup>th</sup> sessions (i.e., post-treatment), as well as six months post-treatment. Treatment sessions took place in a group therapy room in the PI's lab at the University of British Columbia. Data were collected between 2018 and 2020.

Of the 80 participants, ten dropped out after commencing treatment (i.e., four from the DRT and six from the PST conditions). Figure 1 indicates times of dropout and the number of dropouts did not differ between the two conditions:  $\chi^2(1) = 0.45, p = .500$ . Dropouts did not differ from completers on any of the pre-treatment perfectionism measures with the exception of perfectionistic cognitions,  $F(1, 76) = 4.56, p = .036$ , with dropouts scoring higher ( $M = 73.00, SD = 15.17$  vs  $M = 61.07, SD = 18.08$ ). Additionally, dropouts did not differ from completers on pre-treatment measures of symptom distress,  $F(1, 76) = 0.22, p = .650$ , life satisfaction,  $F(1, 76) = 1.27, p = .260$ , or work and social adjustment,  $F(1, 76) = 1.48, p = .230$ , nor did they differ on age,  $F(1, 78) = 2.52, p = .120$ , years of education,  $F(1, 71) = 0.34, p = .560$ , gender,  $\chi^2(2) = 4.34, p = .11$ , marital status,  $\chi^2(6) = 0.60, p = .990$ , or ethnicity,  $\chi^2(9) = 0.18, p = .990$ . However, they did differ on employment status,  $\chi^2(4) = 19.02, p < .001$ , with a greater proportion of people who were unemployed or students among dropouts than completers.

### **Design and Data Analytic Strategy**

We used a randomized controlled design to assess if DRT differed from PST in perfectionism components and symptom changes across pre-treatment, mid-treatment, post-treatment, and follow-up. All variables were normally distributed with no univariate or multivariate outliers. Because patient data were nested within groups, we assessed dependence by calculating the intra-class correlation coefficient ( $\rho$ ) for each outcome (Tasca et al., 2009). Namely, we tested a three-level multilevel model (MLM) with repeated measurements at Level-1 nested within individuals at Level-2 nested within groups at Level-3. Research suggests that an intraclass correlation coefficient ( $\rho$ ) of .05 to .15 represents a moderate violation of the independence assumption and requires an adjustment of the significance level to .01 (Stevens, 2009). In contrast, when  $\rho$  is less than .05 the effect of dependence has an ignorable impact on

Type I error (Kenny et al., 1998). As the  $\rho$  was less than .05 for all variables except for satisfaction with life,<sup>4</sup> analyses were not nested within therapy groups and the significance criteria for analyses involving satisfaction with life was adjusted to .01.

We assessed variation in outcome change and whether it differed across conditions using multiple group latent growth curve modeling (LCGM). The mean and covariance structure in LCGM correspond to the fixed and random effects in a two-level MLM with repeated measures nested within individuals (Hox & Stoel, 2005). LCGMs were estimated in Mplus v.7.3 (Muthén & Muthén, 2017) using robust maximum likelihood estimation. Scores at pre-treatment, mid-treatment, post-treatment, and six-month follow-up were specified as indicators for a latent slope and a latent intercept factor. Indicators for the intercept were fixed at 1 across models and homoscedasticity was established by restricting residual variances to be equal within each group (Preacher et al. 2008)<sup>5</sup>. Wald tests were used to test whether slopes differed across DRT and PST conditions, and Cohen's *d* was used to gauge the magnitude of the difference.

As inspection of the patterns of change suggested non-linear change, we tested linear (slope loadings = 0, 1, 2, 3), logarithmic (slope loadings = 0, 0.69, 1.10, 1.39), exponential (slope loadings = 0, 1.72, 6.39, 19.09), and quadric (slope loadings = 0, 1, 4, 9) models for each outcome. Next, we compared the fit of the model with the lowest BIC to a model with freely

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<sup>4</sup>The intraclass correlation coefficients were as follows: self-oriented perfectionism ( $\rho = .028$ ); other-oriented perfectionism ( $\rho = .004$ ); socially prescribed perfectionism ( $\rho = .001$ ); perfectionistic self-presentation ( $\rho = .036$ ); non-display of imperfection ( $\rho = .005$ ); non-disclosure of imperfection ( $\rho = .003$ ); perfectionistic cognitions ( $\rho = .004$ ), satisfaction with life ( $\rho = .063$ ), work and social adjustment ( $\rho = .004$ ), global severity index ( $\rho = .005$ ).

<sup>5</sup>To achieve model convergence the residual variance of self-oriented perfectionism at pre-treatment was fixed to 0 in DRT and PST, the residual variance of perfectionistic self-promotion at pre-treatment was fixed to 0 in PST, the residual variance of nondisplay of imperfection at pre-treatment and follow-up were allowed to co-vary in PST, and the residual variance of the global severity index slope fixed to 0 in DRT and PST.

estimated time points (slope loadings = 0, \*, \*, 1) using Satorra-Bentler scaled chi-square test (see Supplemental Material C) and selected the model with freely estimated time points when it yielded a significantly better fit. Plots with sample and estimated means are in Supplemental Material D, slope loadings are reported below, and a description of how to interpret the slope for models with freely estimated time points is provided in Supplemental Material E. Results indicated the best fitting model was logarithmic (slope loadings = 0, 0.69, 1.10, 1.39) for perfectionistic self-promotion and freely estimated for all other outcomes (0, \*, \*, 1).

Across outcomes, 13.8% of data points were missing. Little's missing completely at random (MCAR) test suggested data were MCAR:  $\chi^2(369) = 368.07, p = .504$ . For each patient, missing data was coded at mid-treatment as pattern one, at post-treatment as pattern two, and at follow-up as pattern three. Next, we used pattern mixture modeling to examine the impact of patterns of missingness on slopes of interest. Results indicated that missing data patterns did not meaningfully impact any parameter of interest, which increases confidence in using full information maximum likelihood estimation to handle missing data (Enders & Bandalos, 2001).

## Results

### Power Analysis

We used Optimal Design software (Raudenbush et al., 2011) to conduct power-analysis for our planned LGCMs. For a small intraclass correlation of .05, a Level-1 variability of 1.0, a Level-2 variability of .10, assessments at pre-, mid-, and post-treatment, and follow-up, and a moderate effect size of .69 (Hewitt et al., 2015) a two-tailed significance

test would require a minimum of 75 patients to achieve a power for treatment on change of .80. As such, our total sample size of 80 patients was sufficiently powered for the planned analyses.

### Multiple Group Latent Growth Curve Modeling

Fit for the LGCMs are in Table 2. In both DRT ( $b = -26.99$ ,  $SE = 2.84$ ,  $p < .001$ ) and PST ( $b = -20.13$ ,  $SE = 1.98$ ,  $p < .001$ ) self-oriented perfectionism declined (slope loadings = 0, .362, .895, 1; Supplementary Figure 1D), with the magnitude of the change greater for DRT: Wald(1) = 4.54,  $p = .033$ ,  $d = .57$ . Other-oriented perfectionism also declined (slope loadings = 0, .324, .883, 1; Supplementary Figure 2D) in both conditions (DRT:  $b = -14.43$ ,  $SE = 2.72$ ,  $p < .001$ ; PST:  $b = -12.77$ ,  $SE = 1.75$ ,  $p < .001$ ), but with no difference in magnitude of change: Wald(1) = 0.24,  $p = .623$ ,  $d = .15$ . Likewise, socially prescribed perfectionism declined (slope loadings = 0, .388, .923, 1; Supplementary Figure 3D) in DRT ( $b = -15.56$ ,  $SE = 3.06$ ,  $p < .001$ ) and PST ( $b = -12.42$ ,  $SE = 2.16$ ,  $p < .001$ ), with no difference in the magnitude of change across conditions: Wald(1) = 0.73,  $p = .392$ ,  $d = .25$ .

Perfectionistic self-promotion declined (slope loadings = 0, .690, 1.10, 1.39; Supplemental Figure 4D) in DRT ( $b = -12.54$ ,  $SE = 1.59$ ,  $p < .001$ ) and PST ( $b = -7.92$ ,  $SE = 0.85$ ,  $p < .001$ ) with the magnitude of change greater for DRT: Wald(1) = 6.59,  $p = .010$ ,  $d = .88$ . Similarly, in DRT ( $b = -13.32$ ,  $SE = 1.92$ ,  $p < .001$ ) and PST ( $b = -8.64$ ,  $SE = 1.08$ ,  $p < .001$ ) nondisplay of imperfection declined (slope loadings = 0, 0.369, 1.038, 1; Supplemental Figure 5D), with the magnitude of change greater for DRT: Wald(1) = 4.66,  $p = .031$ ,  $d = .55$ . Also, nondisclosure of imperfection declined (slope loadings = 0, 0.439, 1.088, 1; Supplemental Figure 6D) in both DRT ( $b = -8.95$ ,  $SE = 1.16$ ,  $p < .001$ ) and PST ( $b = -5.87$ ,  $SE = 1.00$ ,  $p < .001$ ), with the magnitude of change greater in DRT: Wald(1) = 5.24,  $p = .022$ ,  $d = .67$ . As well,

perfectionistic cognitions declined (slope loadings = 0, .430, .997, 1; Supplemental Figure 7D) in both DRT ( $b = -20.84, SE = 3.63, p < .001$ ) and PST ( $b = -18.84, SE = 3.79, p < .001$ ), with no difference in the magnitude of change:  $Wald(1) = 0.15, p = .489, d = .13$ .

With respect to symptoms, there was a decline (slope loadings = 0, .267, 1.090, 1; Supplemental Figure 8D) in GSI scores in DRT ( $b = -0.37, SE = 0.08, p < .001$ ) and in PST ( $b = -0.32, SE = 0.07, p < .001$ ), with no difference in the magnitude of change:  $Wald(1) = 0.41, p = .523, d = .04$ . An addition, both DRT ( $b = 3.90, SE = 0.96, p < .001$ ) and PST conditions ( $b = 2.78, SE = 0.72, p < .001$ ) showed increases (slope loadings = 0, 0.432, 1.035, 1; Supplemental Figure 9D) in satisfaction with life, with no significant difference in magnitude:  $Wald(1) = 1.03, p = .311, d = .32$ . Lastly, DRT ( $b = -3.71, SE = 0.77, p < .001$ ), but not PST ( $b = -1.18, SE = 0.77, p = .127$ ) displayed a decline (slope loading = 0, 0.69, 1.10, 1.39; Supplemental Figure 10D) in work and social adjustment, with the magnitude of change greater in DRT:  $Wald(1) = 5.41, p = .020, d = 1.18$ .

### **Clinically Reliable Change**

We evaluated clinically reliable changes in perfectionism from pre-treatment to post-treatment and pre-treatment to follow-up by calculating the Reliable Change Index (RCI; Jacobson & Truax, 1991). Table 3 shows the means and standard deviations of the RCIs and the number and percentage of patients who obtained RCI scores above 1.96, reflecting reliable improvement, and below  $-1.96$ , reflecting reliable deterioration.

At post-treatment, RCIs indicating the proportion of patients who experienced clinically reliable improvement ranged from 38% to 92% in DRT and 36% to 85% in PST. Moreover, at follow-up RCIs indicating the proportion of patients who experienced clinically reliable improvement ranged from 40% to 83% in DRT and 44% to 89% in PST. Regarding deterioration

at post treatment, RCIs indicating the proportion of patients who experienced clinically reliable deterioration ranged from 0% to 8% in DRT and 0% to 12% in PST. Likewise, at follow up RCIs indicating the proportion of patients who experienced clinically reliable deterioration ranged from 0% - 10% in DRT and 0% - 12% in PST. Parenthetically, independent t-tests indicated that mean reliable improvement scores for self-oriented perfectionism, nondisclosure of imperfection, and work and social adjustment were significantly ( $p < .05$ ) larger for DRT than PST at post-treatment. However, mean RCIs did not differ between DRT and PST at follow-up. Likewise, chi-square difference tests indicated that the proportion of patients experiencing reliable improvement and reliable deterioration did not differ significantly ( $p > .05$ ) at post-treatment or follow-up. One reason for the discrepancy between our RCI findings and LCGM findings is that LCGM evaluated change across four-time points, whereas RCIs only involved two-time points. Additionally, the LCGM findings were derived from an analysis of the intent-to-treat data, whereas analyses of the RCI data focused on treatment completers. The intent to treat sample data is more likely to provide a non-biased estimate of the findings (Tasca et al., 2009).

### **Discussion**

We conducted a randomized controlled trial examining psychodynamically informed treatments for perfectionism and examined the efficacy of DRT relative to PST for treating perfectionism and associated dysfunction. For both treatments, based on a comprehensive conceptualization of perfectionism (Hewitt et al., 2017), we assessed patients' trait perfectionism, perfectionistic self-presentation, perfectionistic cognitions, as well as symptom



severity, life satisfaction, and work and social adjustment. Multigroup LGCM revealed both DRT and PST conditions experienced moderate-to-large improvements across pre-treatment, mid-treatment, post-treatment, and six-month follow-up in all outcomes. Furthermore, the results indicated clinically reliable change across all components of perfectionism for both types of group therapy at post-treatment and at follow-up. Finally, relative to patients allocated randomly to PST, patients allocated randomly to DRT tended to experience greater improvements in self-oriented perfectionism, perfectionistic self-promotion, nondisplay of imperfection, nondisclosure of imperfection, and work and social adjustment from pre-treatment to follow-up.

The main objective was to compare the efficacy of the DRT with a bona fide psychodynamically informed treatment, PST, in order to provide evidence of the efficacy of psychodynamic approaches for perfectionism and, in particular, to evaluate the effect of an interpretive, insight-oriented focus on relational dynamics in reducing perfectionism and associated dysfunctions. Both group treatment approaches were beneficial based on improvements in perfectionism and psychological functioning outcomes over treatment and follow-up and in terms of clinically reliable changes as evidenced by the RCI findings. Of note, large treatment effects were obtained in self-oriented perfectionism, perfectionistic self-promotion, and both nondisplay and nondisclosure of imperfection in both conditions.

Even so, despite comparable overall treatment effects for both treatment conditions, patients who received DRT experienced greater declines in self-oriented perfectionism and all facets of perfectionistic self-presentation as well as work and social adjustment. These between-group effects provide empirical support for the efficacy of DRT relative to PST in the treatment of perfectionism for certain perfectionism components. Taken together, these results suggest

significant change across a range of outcomes can be achieved via psychodynamically informed group therapies that promote patient disclosure and reflection about challenges associated with perfectionism. However, the findings also suggest that greater improvement in specific aspects of perfectionism—particularly self-oriented and self-presentational facets—may be achieved in group therapy that uses more exploratory and interpretive here-and-now dynamic interventions to target relational and developmental underpinnings of perfectionism.

There are several possible explanations for why or how DRT outperformed PST on certain perfectionism components and other outcomes. First and foremost, as perfectionism appears to develop from and is driven by unmet needs for belongingness and self-esteem (see Hewitt et al., 2017; Hollender, 1965), DRT's intensive focus on these unmet needs may have led to greater improvement in patients in this treatment. Specifically, by facilitating affective experiencing and expression of those needs and by focusing on perfectionistic behavior as an ineffective defensive solution to fulfill those needs, DRT may have facilitated more substantial changes, especially in the more deeply ingrained trait and self-presentational components of perfectionism. While both treatments address the role of perfectionism in relationships, a unique feature of DRT is the 'here-and-now' exploration of unmet perfectionism-related relational patterns manifested in relationships and interactions among group members. Moreover, DRT approaches patients' relation with the self, using interpretive techniques focusing on unmet belongingness in contemporary and early developmental relationships (see Mikail et al., 2022).

Second, the comparable treatment effects observed for socially prescribed perfectionism, other-oriented perfectionism, and perfectionistic cognitions suggest that mechanisms shared by both therapies likely played a more prominent role in change for these components than features unique to either treatment. Both DRT and PST employ interpersonal processes to facilitate a sense of cohesiveness within the group, self-disclosure and empathy among group members, and support and acceptance for individual patients. Such processes may have provided corrective relational experiences—directly fostering belonging, sharing, and personal reflection—that were more salient to change in these perfectionism components than relationally-oriented interpretive work. This suggests group psychodynamic psychotherapy, and group DRT in particular, may be efficacious for treating perfectionism. The group format emphasizes safety, cohesion, and connection in addition to exploring painful emotions, and the sense of belonging, fitting, and acceptance may be particularly poignant for perfectionistic individuals. Furthermore, our findings dovetail with earlier work comparing group DRT to waitlist controls, in which treatment participants (Hewitt et al., 2015) reported significantly lower levels of perfectionism at post-treatment and four-month follow-up relative to waitlist participants with large effect sizes.

### **Limitations and Future Directions**

While the current study yielded important findings, some limitations should be noted. First, although we utilized a 12-session treatment period, longer treatments might yield different results as there is some evidence that true clinically relevant change, irrespective of the type of treatment, does not begin until after the 30<sup>th</sup> session (Morrison et al., 2003). This suggests

extending the length of treatment might lead to a widening of treatment differences between DRT and PST or, conversely, show that PST takes longer for treatment effects to catch up to DRT. Additionally, longer follow-up assessments are needed to determine if the treatment changes reported are lasting and whether there is a commensurate reduction in episodes of depression, anxiety, and other psychopathologies by reducing the putative vulnerability factor of perfectionism. Furthermore, a post-hoc Monte Carlo power analysis conducted using parameter estimates derived from our data and 1000 repetitions revealed our power to detect the impact of treatment condition on the slope for non-disclosure of imperfection was suboptimal (i.e., .56). Accordingly, our finding that the slope for non-disclosure of imperfection was greater in DRT relative to PST might reflect a Type 1 error and should be interpreted cautiously. In addition, one of the nine therapists provided both PST and DRT which may have introduced potential bias.

Also, not all patients benefitted from DRT or PST in our study, and although a substantial number of patients experienced reliable improvement, deterioration in some outcomes occurred. A next step is to evaluate which interventions and therapeutic mechanisms are most efficacious for particular patients with perfectionism. Indeed, some patients might be especially receptive to interpretive interventions, whereas others may profit more from a supportive group milieu. Likewise, it will be important to evaluate other interventions to refine DRT. For example, recent evidence indicates that addressing specific elements of self-compassion are beneficial in both accessing deeper affect and facilitating changes in the self-relationship of perfectionistic individuals (see Cheli et al., 2020). Incorporating such interventions would be consistent with Ong et al. (2019), who suggested that focusing on self-compassion may help change some perfectionism attitudes.

Furthermore, addressing potential mechanisms of change in psychodynamic treatments of perfectionism using component designs may be particularly fruitful. Doing so could shed light on the mechanisms most salient for particular groups of perfectionistic patients and, in turn, inform efforts at integration in the treatment of perfectionism, including possibilities for non-psychodynamic approaches to incorporate developmental, relational, affective, and process elements. Future work could assess measures from other important conceptualizations of perfectionism, including measures of self-criticism and dependency (Blatt & Zuroff, 1992), concern with mistakes (Frost et al., 1990) or dysfunctional perfectionistic attitudes (Imber et al., 1990). This work would be important to illustrate whether psychodynamic approaches affect elements of perfectionism that are seen as pivotal in other models. We also encourage readers to interpret our findings with caution pending independent replication. Finally, our study did not include a waitlist control, and the extent to which findings were impacted by regression to the mean is unclear.

### **Conclusion**

Perfectionism is a powerful and pernicious personality vulnerability factor for psychopathology and other dysfunctions (e.g., Blatt, 1995). Our results indicate that substantial improvements can be achieved in all perfectionism domains using psychodynamic group treatments. Specifically, findings demonstrate the superiority of an interpretive, relational process-oriented group treatment over a supportive approach for several perfectionism components. Thus, evidence from this study is encouraging in the sense that large and clinically significant effects can be achieved—and maintained in the months following treatment—in the

reduction of perfectionistic behavior through psychodynamically oriented group psychotherapy.

The current work contributes to the accumulating evidence that psychodynamic treatments are potentially powerful treatments for perfectionism. Additionally, we encourage readers to compare the efficacy of PST and DRT to non-psychodynamic treatments.

### **Transparency, Openness, and Allegiance**

The authors have no conflicts of interest. Data and materials are available from the corresponding author. The manual for DRT is available through Guilford Publications and the manual for PST from the second author. We minimized researcher allegiance effects and bias by including proponents of DRT, PST, and CBT.

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**Table 1***Demographics of Patients in the Dynamic Relational Therapy (DRT) and Psychodynamic Supportive Therapy (PST) Conditions*

	Total		DRT		PST		<i>F</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Age	37.71	12.94	38.81	14.67	36.48	10.76	$F(1,69) = 0.56$	.457
Years of education	16.84	3.92	16.76	3.96	16.92	3.92	$F(1,78) = 0.02$	.888
							$\chi^2$	<i>p</i>
Gender	<i>n</i>		<i>n</i>		<i>n</i>		$\chi^2(2) = 0.58$	.748
Men	21		12		9			
Women	48		24		24			
Nonbinary	1		1		0			
Not reported	10		4		6			
Ethnicity	<i>n</i>		<i>n</i>		<i>n</i>		$\chi^2(8) = 0.15$	.999
European	48		30		18			
South Asian	1		0		1			
Asian	9		2		7			
Hispanic	1		0		1			
Middle Eastern	3		2		1			
African	1		0		1			
Mixed	3		1		2			
Not reported	14		6		8			
Marital status	<i>n</i>		<i>n</i>		<i>n</i>		$\chi^2(6) = 15.73$	.015
Single	34		17		17			
Married	16		4		12			
Divorced	3		1		2			
Separated	2		1		1			
Common law	7		6		1			
In relationship	5		5		0			
Not reported	13		7		6			



	1.0	0.5	1.0	0.5	1.0	0.6	0.8	0.6	0.7	0.3	0.6	0.4	0.7	0.6	0.6	0.5	30.14 (18)	.867	.911	.130 [.033, .209]
<i>Other outcomes</i>																				
SWL	41		39		36		36		37		33		24		25					
	16.2	7.7	18.6	6.2	18.4	7.3	20.0	6.1	20.7	6.9	21.8	6.5	20.3	7.9	21.8	5.0	8.31 (14)	1.00	1.00	.000 [.000, .079]
WSAS	39		39		35		35		35		33		24		25					
	20.8	7.6	16.4	8.4	18.9	9.7	16.5	8.5	16.0	8.5	15.5	8.3	16.3	9.9	12.8	8.6	28.51 (14)	.912	.934	.140 [.046, .222]

*Note.* **DRT** = dynamic relational therapy; **PST** = psychodynamic supportive therapy; **SOP** = self-oriented perfectionism; **OOP** = other-oriented perfectionism; **SPP** = socially prescribed perfectionism; **Promote** = perfectionistic self-promotion; **Nondisplay** = nondisplay of imperfection; **Nondisclose** = nondisclosure of imperfection; **PCI** = perfectionism cognitions inventory; **GSI** = global severity index of the Brief Symptom Inventory; **SWL** = satisfaction with life scale; **WSAS** = work and social adjustment scale; **CFI** = comparative fit index; **TLI** = Tucker Lewis index; **RMSEA** = root mean square error of approximation.

**Table 3**

*Reliable Change Index (RCI) Statistics for Patients in the Dynamic Relational Therapy and Psychodynamic Supportive Therapy Groups*

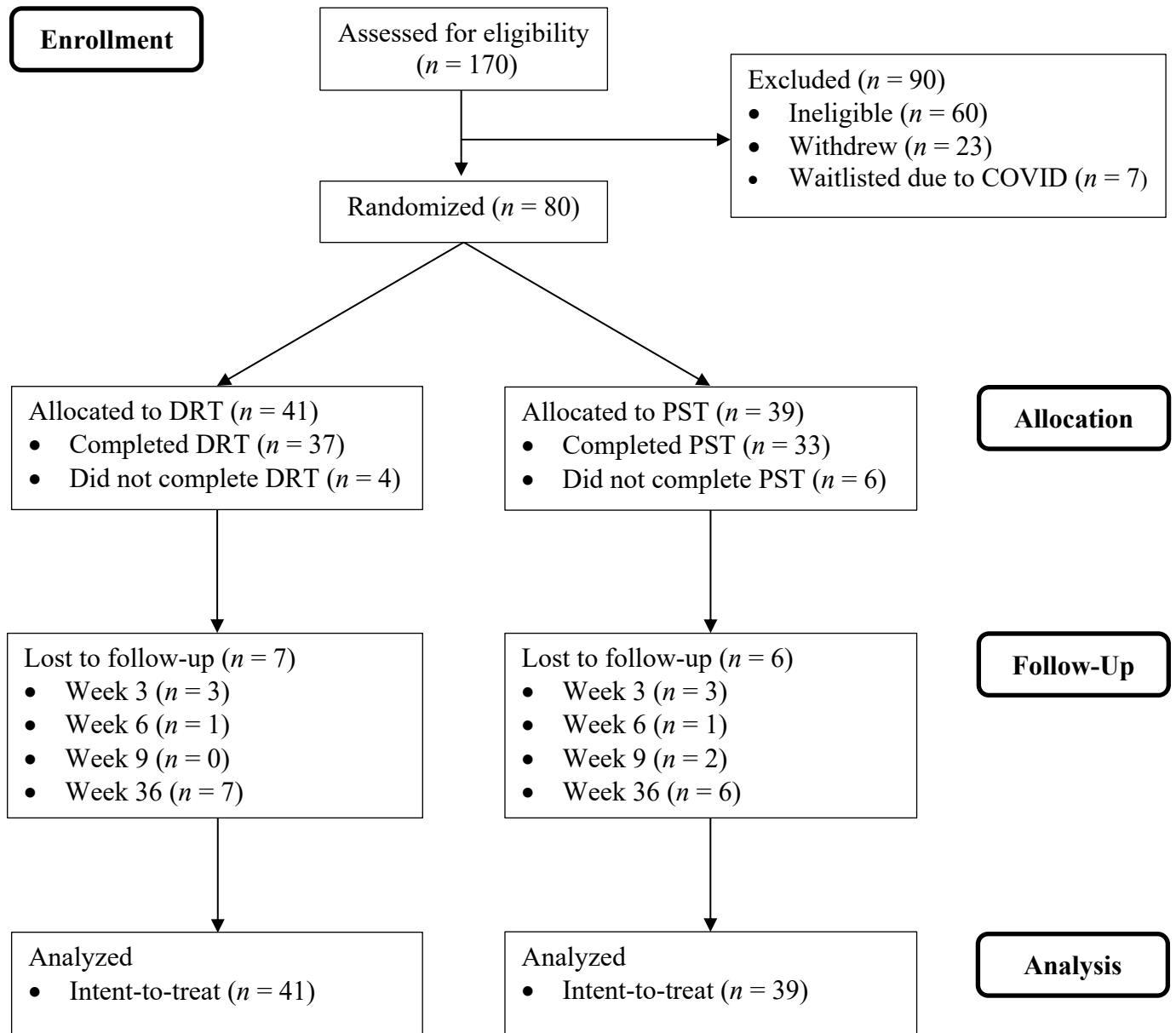
Variable	DRT							PST						
	RCI			+		-		RCI			+		-	
<i>Pre-Post</i>	<i>n<sub>t</sub></i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n<sub>t</sub></i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
SOP	37	6.0	3.7	34	92	0	0	33	4.3	2.6	28	85	1	3
OOP	37	1.7	2.4	14	38	0	0	33	2.3	1.9	21	64	0	0
SPP	37	2.5	3.6	18	49	2	5	33	1.7	1.9	13	39	0	0
PSP	37	4.9	4.1	26	70	1	3	33	2.8	3.9	23	70	0	0
NDP	37	4.9	4.9	25	68	1	3	33	3.2	2.3	22	67	0	0
NDC	37	2.6	1.9	21	57	0	0	33	1.4	1.4	12	36	0	0
PCI	37	3.8	4.2	24	65	3	8	33	2.8	3.9	20	61	4	12
GSI	36	2.6	3.5	23	64	3	8	32	2.1	2.8	19	59	2	6
SWL	37	-1.0	1.5	10	27	1	3	33	-0.7	1.4	6	18	1	3
WSAS	34	1.4	2.0	12	35	2	6	33	-0.9	1.3	3	9	2	6
<i>Pre-FU</i>	<i>n<sub>t</sub></i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n<sub>t</sub></i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
SOP	30	5.7	4.0	25	83	0	0	27	5.6	2.9	24	89	0	0
OOP	30	1.8	2.7	12	40	0	0	27	2.8	2.1	17	63	0	0
SPP	30	2.8	3.4	16	53	1	3	27	2.1	1.9	12	44	0	0
PSP	29	4.8	3.6	19	66	0	0	27	4.7	3.3	21	78	0	0
NDP	29	4.4	4.3	21	72	1	3	27	3.4	3.1	19	70	1	4
NDC	29	2.2	1.9	13	45	0	0	27	1.7	1.5	13	48	0	0
PCI	29	3.3	3.9	18	62	3	10	27	3.1	3.7	17	63	3	11
GSI	29	2.1	3.1	15	52	3	10	26	1.9	2.6	13	50	2	8
SWL	24	-0.8	1.5	6	25	0	0	25	-0.8	1.5	5	20	0	0
WSAS	22	1.0	1.6	6	27	2	9	25	0.4	2.1	6	24	3	12

*Note.*  $n_t$  = total number of patients; **DRT** = dynamic relational therapy; **PST** = psychodynamic supportive therapy; + = patients who showed clinically reliable improvement from pre- to post-treatment or pre- to follow-up; - = patients who showed clinically reliable deterioration from pre- to post-treatment or pre- to follow-up; **SOP** = self-oriented perfectionism; **OOP** = other-oriented perfectionism; **SPP** = socially prescribed perfectionism; **PSP** = perfectionistic self-promotion; **NDP** = nondisplay of imperfection; **Nondisclose** = nondisclosure of imperfection; **PCI** = perfectionism cognitions inventory; **GSI** = global severity index of the Brief Symptom Inventory; **SWL** = satisfaction with life scale; **WSAS** = work and social adjustment scale.



**Figure 1**

*CONSORT Diagram Showing Study Flow*



*Note.* **DRT** = Dynamic Relational Psychotherapy; **PST** = Psychodynamic supportive psychotherapy; **S3** = session three; **S6** = session six; **S9** = session 9.