The Effects of Intensive Short-Term Dynamic Psychotherapy on Depressive Symptoms, Negative Affect and Emotional Repression in Single Treatment-Resistant Depression: A Randomized Controlled Trial

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Author Note

This randomized clinical trial was retrospectively registered (https://osf.io/v46gy).

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Abstract

Intensive short-term dynamic psychotherapy (ISTDP) is theorized to reduce negative affect by challenging patients' defense mechanisms so that they can experience and work through attachment-trauma-related emotions. While ISTDP has been shown to decrease depressive symptoms in single treatment-resistant depression (TRD), it has not been established whether negative affect and emotional repression are reduced, as theorized. Next to depressive symptoms, this retrospectively registered (https://osf.io/####) randomized controlled trial, therefore, examined the effects of ISTDP on emotional repression and negative affect in adults with TRD. Eighty-six adults with major depressive disorder, who had not responded to at least one trial of antidepressants were randomized to 20 sessions of ISTDP ($N = 43$) or a waitlist control condition ($N = 43$). Mixed-effect models on the intention-to-treat sample showed that compared to the control condition, ISTDP resulted in significantly lower post-treatment levels of depressive symptoms ($d = -1.73$), emotional repression ($d = -1.91$), and negative affect ($d = -1.45$). Similarly, ISTDP resulted in significantly lower levels of depressive symptoms ($d = -2.67$), emotional repression ($d = -2.69$), and negative affect ($d = -1.85$) at the 3-month follow-up. These results support the evidence base of ISTDP by showing that it can decrease depressive symptoms, emotional repression, and negative affect in TRD. Future studies should assess whether these effects are specific to ISTDP.

Keywords: Intensive short-term dynamic psychotherapy, negative affect, emotional repression, treatment-resistant depression, randomized controlled trial

Clinical Impact Statement

Question: Intensive short-term dynamic psychotherapy (ISTDP) has been shown to decrease depressive symptoms in individuals with treatment-resistant depression (TRD). Whether ISTDP also decreases negative affect and emotional repression in line with its theoretical background has not been studied yet. Therefore, this study investigated the effects of ISTDP on negative affect and emotional repression for individuals with TRD. Adults with TRD were randomly assigned to either receive ISTDP or to be placed on a waiting list.

Findings: At the end of treatment and three months later, individuals treated with ISTDP showed greater decreases in experiencing negative feelings and in emotional repression than those who had been on the waiting list.

Meaning: ISTDP is more effective than the passage of time in reducing negative feelings and emotional repression in adults who previously did not benefit from antidepressant medication for their depressive episode.

Next Steps: While these findings indicate ISTDP is a potentially promising treatment for TRD, further rigorous comparisons of ISTDP to other active treatments for TRD and research on it its proposed working mechanisms are needed.

Intensive short-term dynamic psychotherapy (ISTDP) is a form of brief psychodynamic therapy developed by Habib Davanloo in the late 20th century (Davanloo, 2001), which can be distinguished from other types of psychodynamic psychotherapy by its highly confrontational nature (Thoma & Abbass, 2022). The underlying theoretical assumption of ISTDP is that by a series of therapeutic interventions, unconscious attachment-trauma-related emotions can be experienced and processed by patients, which results in behavior change and a decrease in psychiatric symptoms (Abbass & Town, 2013; Davanloo, 2000; Johansson et al., 2014).

During the first ISTDP session patients' anxiety tolerance is assessed and if required, extended through a process of activating and reflecting on emotions (Schröder et al., 2016). This process, also called *graded format*, is mostly applied to patients exhibiting lower-level defense mechanisms, such as denial (Davanloo, 2001). Thereafter, similar to patients exhibiting higher-level defenses (e.g., intellectualization), therapists use pressure to encourage patients to explore previously avoided thoughts or emotions, with the goal to mobilize complex transference feelings that mirror patients' unprocessed attachment-trauma-related emotions (Abbass & Town, 2013; Davanloo, 2000). Resistance that might arise against experiencing these complex transference feelings is then challenged by the therapists. Using various interventions, the therapists directly address the resistance's destructiveness and the patients' ability to overcome the resistance (Abbass & Town, 2013; Gottwik et al., 2001). If challenging is successful, patients enter a state in which complex transference feelings are accessible, which has been termed as the *unlocking of the unconscious* (Davanloo, 2001). In this state, patients can now experience and work through their attachment-trauma-related emotions (Abbass et al., 2012), which is theorized to result in behavior change and decreased psychiatric symptom levels (Abbass & Town, 2013; Davanloo, 2000; Johansson et al., 2014).

Randomized controlled trials (RCTs) have shown ISTDP to be efficacious in treating mood, somatoform, and personality disorders (Abbass et al., 2008; Ajilchi et al., 2016; Baldoni et al., 1995). Additionally, the mobilization of unprocessed complex emotions and the unlocking of the unconscious have been found to be positively associated with treatment effects, albeit in naturalistic correlational designs in which causality could not be established (Johansson et al., 2014; Lilliengren et al., 2017). Moreover, a case series found large pre- to post-treatment effects on depressive symptoms regarding ISTDP for treatment-resistant depression (TRD; Abbass, 2006). An RCT from the same group replicated these findings comparing ISTDP to treatment-as-usual and showed that effects were maintained at 18-month follow-up (Town et al., 2020). That ISTDP can be an efficacious treatment for TRD is noteworthy since previous research has failed to show a superiority of psychotherapy in general over treatment-as-usual for TRD i.e., antidepressants (van Bronswijk et al., 2018).

TRD is a prevalent disorder, accounting for 12-55% of all individuals with a major depressive disorder (MDD; Kubitz et al., 2014; Thomas et al., 2013, Zhdanava et al., 2021). Next to the significant burden TRD places on patients, such as increased mortality and likelihood of hospitalization (Crown et al., 2002, Sousa et al., 2022), the societal costs of TRD have been estimated to account for 27-41% of the costs associated with MDD (Zhdanava et al., 2021). A potential reason for the high degree of variance in prevalence and cost estimates is the lack of a universally accepted definition of TRD (Fava, 2003). While the most common definition of TRD reported in systematic reviews and consensus statements is the failure of two prior treatments of the recommended dose and duration, studies examining TRD most frequently use the definition of one prior unsuccessful treatment attempt as indicative of TRD (Gaynes et al., 2019). The limited efficacy of psychotherapy for TRD (van Bronswijk et al., 2018) may be explained by patients with longer episode durations having depressive symptoms that are strongly influenced by their personality structure which can

result in more complex working alliances and transference feelings. In contrast to other psychotherapies (e.g., cognitive behavioral therapy [CBT]), ISTDP therapists are trained to address these complex feelings (Driessen et al., 2016, 2022).

Although ISTDP is a promising treatment for TRD, further research is needed. First, to rule out investigator effects, it is important to establish the efficacy of an intervention by an independent research group (Chambless & Hollon, 1998). Second, ISTDP is hypothesized to decrease psychiatric symptoms by challenging patients' defense mechanisms, enabling experiencing and processing of unconscious attachment-trauma-related emotions (Johansson et al., 2014). While there is some preliminary support for this hypothesis (Town et al., 2022), another study did not find a significant decrease of emotional repression over the course of treatment nor an association between emotional repression and treatment outcomes in individuals with chronic back pain (Hawkins, 2003). Therefore, it is still unclear whether ISTDP for TRD in fact results in a decrease of emotional repression – or the unconscious avoidance of experiencing unpleasant emotions (Furnham et al., 2003) – as theorized. Third, previous studies have focused on depressive symptom reduction. However, unlike CBT, which is a symptom-focused treatment, ISTDP is an emotion-focused therapy (Johansson et al., 2014), which can be expected to reduce negative affect more broadly. Negative affect has been defined as a subjective state of distress, including various negative feelings such as anger, guilt, and fear (Watson et al., 1988). The effects of ISTDP on negative affect have yet to be examined.

This RCT aimed to add to the small yet promising body of literature by examining the effects of ISTDP for TRD independently from the research group that conducted the existing two studies. Furthermore, this study aimed to add to the available literature by comparing ISTDP to a control condition on measures of depressive symptoms as well as emotional repression and negative affect. It was hypothesized that ISTDP would lead to larger decreases

in depressive symptoms, emotional repression, and negative affect compared to the control condition.

Methods

Design

This study was an RCT with an allocation ratio of 1:1 for ISTDP (50%) and the control condition (50%). Ethical approval was granted by the Research Ethics Committee of the University of Tabriz (Approval code: IR.TABRIZU.REC.1400.012). This study was not pre-registered, because this was not common practice in the country where the study was conducted (Iran). It was, however, retrospectively registered (https://osf.io/####). The primary investigator (first author) declares that there were no other outcome measures assessed than the ones reported here, and that negative affect and emotional repression were pre-specified as primary outcome measures before the trial started. Prior to this RCT, a naturalistic pilot study ($N = 3$) was conducted to test research procedures (######## et al., 2021). There is no overlap between the samples of the pilot study and this RCT. No previous work exists based on the sample included in this study.

Participants

Participants were recruited between April 2020 and May 2020 from the waitlists of four clinical psychologists and four local outpatient mental health clinics in Tabriz, Iran. Eligible participants were adults aged 18-60 years, with at least a high school education level, and meeting DSM-IV criteria for major depressive disorder (American Psychiatric Association, 2000). MDD diagnoses were assessed with the Mini-International Neuropsychiatric Interview-Plus (Lecrubier et al., 1997) by two independent raters (interrater reliability $\kappa = .94$). To facilitate comparison with the previous RCT of ISTDP for TRD (Town et al., 2017) criteria for TRD from that study were applied. Participants met these study criteria if they did not respond to at least one trial of antidepressants at the recommended

therapeutic dosage and duration for their current depressive episode, which was required to be present for six weeks or longer. Antidepressant medication use was permitted during the trial period as long as the dosage was not changed. Participants were excluded in case of a comorbid personality disorder, psychotic or bipolar depression, severe substance dependence, cognitive impairments, active suicidality or self-mutilating behaviors, psychotic spectrum disorder, brain injury, diabetes, or cardiovascular disease. Participants who had received psychotherapy in the last 12 months or could not attend the regular treatment sessions were also excluded.

Interventions

ISTDP was conducted according to the procedures described by Davanloo (2000) and consisted of 20 individual sessions held twice a week for ten weeks. During the first treatment session, called the trial therapy, the therapists assessed the participants' anxiety tolerance and depending on this applied either the graded or the standard ISTDP format. With the graded format, the participants' capacity to tolerate the anxiety provoked by emotional experiences was first developed through a gradual process of activating and reflecting on emotions (Schröder et al., 2016). Afterwards, as in the standard ISTDP format, treatment focused on mobilizing unprocessed emotions by challenging defense mechanisms and participants' resistance (Schröder et al., 2016).

Two male therapists (37 and 40 years old) treated, respectively, 22 and 21 participants, in their private practices. The therapists, who both had 10 years of experience delivering ISTDP, completed their training provided by a trainer meeting International Experiential Dynamic Therapy Association (IEDTA) criteria. Weekly supervision was conducted by a senior IEDTA therapist, during which five randomly selected videotaped treatment sessions were reviewed for each participant.

Participants in the control condition did not receive any kind of study treatment and were requested not to seek additional treatment for the duration of the study and follow-up period, however (similar to the intervention condition), continuation of their antidepressant medication was allowed if the dosage remained unchanged. Compliance with these requirements was checked by two research assistants (one doctoral student and one individual with a master's degree) by asking each participant every two weeks whether additional treatment was pursued. Upon completing the follow-up assessment, participants in the control condition were compensated for their study participation with 5 million Iranian rials (approximately $118), and they received treatment at the clinics from which they were originally recruited.

Measures

Participant demographics (age, gender, marital status, education level, employment status, and socioeconomic status) were assessed with a self-report questionnaire at baseline. The outcome measures Weinberger Adjustment Inventory (WAI; Weinberger, 1990), and Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) were assessed at baseline, post-treatment, and 3-month follow-up. The 3-month follow-up time point was chosen to reduce the risk of attrition and due to ethical considerations of withholding treatment from the control condition compared to a longer follow-up period (e.g., Town et al., 2020).

The WAI is an 84-item self-report scale, measuring social and emotional adjustment. It comprises ten subscales grouped into three dimensions: distress (anxiety, depression, low self-esteem, low well-being), restraint (suppression of aggression, impulse control, consideration of others, responsibility), and defensiveness (repressive defensiveness, denial of distress). Total scores for each subscale and dimension constitute the average scores of the related items, which are scored on a 5-point Likert scale ranging from 1 = "almost never" to 5

= “almost always”. Discriminant, concurrent, and predictive validity of the WAI have been demonstrated in a variety of samples including university students (Pincus & Boekman, 1995), parents, teachers, and school children (Weinberger, 1996), and clinical and nonclinical samples (Weinberger, 1997).

Depressive symptom level was measured with the 7-item WAI depression subscale (WAI-Depression; Weinberger, 1990). Items include statements such as “I often feel sad or unhappy”. Higher total scores on this subscale (range: 7 – 35) indicate higher degrees of depression severity. Internal consistency of the depression subscale has been reported as acceptable to good (α = .78 – .89; Weinberger, 1997). In the current sample, it was found to be good (α = 0.81).

Emotional repression was assessed using the WAI repressive/restraint composite (WAI-RRC; Weinberger, 1990). This measure was chosen since it can be easily administered in clinical practice and has been used as a measure of emotional repression in previous studies (Baudic et al., 2016; Heshmati et al., 2019; Kehtary et al., 2018). The WAI-RRC is calculated by dividing the total score of the restraint dimension by three and then adding the total score of the repressive defensiveness subscale ($WAI_{RRC} = \frac{Restraint\ sum\ score}{3} + Repressive\ defensive\ sum\ score$; *Weinberger Adjustment Inventory Scoring Manual*, n.d.). Items include statements such as “People who get me angry better watch out” (restraint dimension), or “I am never unkind to people I don’t like” (repressive defensiveness subscale). Higher WAI-RRC scores (range: 21 – 105) indicate higher degrees of emotional repression. Internal consistency of the restraint dimension has been reported as excellent (α = .91; Weinberger et al., 1990) and of the repressive defensiveness subscale as questionable (α = .67; Blagov & Singer, 2004). In an Iranian sample, internal consistency of the restraint dimension and the repressive defensiveness subscale of the Persian WAI translation were found acceptable (α = .76, α = .70, respectively; Saeedi et al., 2016). In the current sample, internal consistency of the

restraint dimension and the repressive defensiveness subscale were found good and acceptable (α = .80, α = .78, respectively).

Negative affect was measured with the 10-item negative affect (NA) subscale of the PANAS, which is a self-report scale to assess subjective distress and aversive mood states (Watson et al., 1988). Participants were asked to rate to what extent they felt ten emotions (e.g., distress, upset, fear, hostility) during the past week on a 5-point Likert scale ranging from 1 = "very slightly or not at all" to 5 = "extremely". The PANAS-NA total score equals the sum of the item scores (range: 5 – 50), with higher scores representing higher levels of negative affect. Previous research confirmed the external validity of the PANAS-NA and showed a good internal consistency (α = .87; Watson et al., 1988). Internal consistency of the Persian translation in an Iranian sample was also found to be good (α = .85; Bakhshi et al., 2009), and in the current sample to be excellent (α = .91).

Procedure

All participants provided written informed consent after full description of the study and were informed that they could withdraw their participation at any time. After this, participants were assessed with regard to the inclusion and exclusion criteria and, if found eligible, assigned to the ISTDP or control condition using block randomization with block sizes of two and four. For this purpose, an independent research assistant generated a list of random numbers using SPSS (version 24.0.0.0). Allocation concealment was ensured by storing the sequence in opaque envelopes. Randomized participants filled in the baseline measures and entered the study phase. All data collected during the study were anonymized and encrypted to ensure the participants' privacy. Treatment took place from June 2020 to August 2020. The 3-month follow-up assessments were conducted in November 2020.

Data Analysis

Baseline characteristics of participants in the two conditions were compared with independent t-tests for continuous variables and χ^2 tests for categorical variables using SPSS (version 26.0.0.0) with a significance level of $\alpha = .05$. Baseline characteristics of participants who did and did not complete the post-treatment and follow-up assessment were compared in the same way.

Treatment effects were estimated using mixed model analyses with a two-level structure (participant, assessment moments) and restricted maximum likelihood estimation. Intention-to-treat analyses, including all participants randomized, were conducted using R (version 4.2.1; R Core Team, 2020) and the lme4 package (version 1.1-27.1; Bates et al., 2015). The dependent variables were the WAI-Depression, WAI-RRC, and PANAS-NA total scores. As recommended by Twisk et al. (2018, equation 2c), the models included a main effect for time and a time-by-treatment interaction. The approach by Twisk et al. (2018) was chosen because of its capacity to adequately account for baseline differences and because participants are still included in the analyses if they have missing post-treatment and/or follow-up assessments (i.e., intention-to-treat analyses). A random intercept with respect to participants and fixed slopes were estimated. A significant time-by-treatment interaction estimate ($p < .05$) was considered to indicate a treatment effect, a significant time main effect was considered to show the effect of time in the control group (i.e., symptom change in the absence of treatment). In addition to the baseline/post-treatment and baseline/follow-up time contrasts, the post-treatment/follow-up contrasts were examined for changes during the follow-up period. *P* values were calculated with Kenward-Roger's approximate *F* test and 95% confidence intervals were calculated using bootstrapping with 10.000 simulations. Following Brysbaert & Stevens (2018), Cohen's *d* effect sizes were calculated by dividing the difference in means by the square root of all variance components. These were interpreted as ≤ 0.32 small, $0.33 – 0.55$ moderate, and ≥ 0.56 large (Lipsey & Wilson, 1993). The normalcy

assumption was checked by visual inspection of the plotted residuals and standardized residuals (Gelman & Hill, 2007). In addition, reliable change indices (RCIs) from baseline to post-treatment were calculated for depressive symptoms and negative affect according to the procedures described by Jacobsen & Truax (1991) using the R package ClinicalSig (version 0.1; Ziegler, 2016). Standard deviations and reliability estimates for negative affect were used from the Persian PANAS validation study (Bakhshi et al., 2009), and from the original WAI development study for depressive symptoms (Weinberger, 1990), since this information was not reported in the Persian validation study for this subscale (Saeedi et al., 2016). RCIs $\leq$ -1.96 indicated significant improvement, RCIs between -1.96 and 1.96 no significant change, and RCIs $\geq$ 1.96 significant decline. RCIs for emotional repression could not be calculated, since this outcome constitutes a composite score, for which the requisite information for RCI calculation (i.e., Cronbach's alpha) cannot be established.

Investigating the robustness of results, sensitivity analyses were conducted 1) with multiple imputation of missing post-treatment and/or follow-up scores [using the R package mice (version 3.15.0; van Buuren, & Groothuis-Oudshoorn, 2011)], 2) only including participants who completed all assessments, and 3) only including participants who had two or more previous unsuccessful antidepressant trials. Additionally, a post hoc χ^2 test and mixed model analyses were conducted to examine potential therapist effects on, respectively, dropout and all outcome measures. The mixed model analyses had a two-level structure (participant, assessment moments) and restricted maximum likelihood estimation. These models included a time main effect, a therapist main effect, a time-by-therapist interaction, a random intercept for participants, and fixed slopes.

Results

Participants

Figure 1 shows the CONSORT flow diagram. Of 105 participants assessed for eligibility, 19 (18.1%) were excluded from trial participation. The most frequent reasons for exclusion were not meeting the study's definition of TRD ($N = 4$, 21.1%), having received psychotherapy in the past 12 months ($N = 3$, 15.8%), being unable to attend the treatment sessions regularly ($N = 3$, 15.8%), or having a comorbid personality disorder ($N = 3$, 15.8%). In total, 86 participants (81.9%) were considered eligible and were randomly assigned to ISTDP ($N = 43$, 50%) and the control condition ($N = 43$, 50%).

Baseline characteristics of the study sample are described in Table 1. The mean age of participants was 36.9 years ($SD = 11.73$), and the majority of participants were female ($N = 53$, 61.6%), married ($N = 48$, 55.8%), employed ($N = 46$, 53.5%), had a mid-level socioeconomic status ($N = 56$, 65.1%) and a university or higher education level ($N = 53$, 61.6%). On average, participants reported 1.84 ($SD = 0.94$) previous unsuccessful antidepressant trials; 38 (44.2%) participants reported one trial, 32 (37.2%) reported two trials, 8 (9.3%) reported three trials, and 8 (9.3%) reported four trials. The majority of participants were currently taking antidepressants ($N = 68$, 79.1%). The two conditions did not significantly differ regarding any of the baseline characteristics (Table 1).

In the ISTDP condition, four participants (9.3%) stopped treatment prematurely because they could not attend the treatment sessions regularly and three (7.0%) did not respond when being contacted for the post-treatment and follow-up assessments. On average, participants in the ISTDP condition attended 18.9 sessions ($SD = 3.5$). In the control condition, three participants (7.0%) refused to fill in the questionnaires and one (2.3%) did not respond when being contacted for the assessments. No significant differences were found on any baseline characteristics between participants who did and did not complete the assessments (Table 2). None of the participants in the control condition reported having sought additional treatment.

Treatment Outcomes

The average observed WAI-Depression, WAI-RRC, and PANAS-NA total scores per condition and assessment moment are listed in Table 3 and visually depicted, respectively, in Figures 2A, B, and C. The results of the mixed model analyses based on the intention-to-treat sample are presented in Table 4.

Depressive symptom levels were significantly lower in the ISTDP condition compared to the control condition at both post-treatment (B = -7.41, 95% CI [-8.91, -5.90], p <.001) and follow-up (B = -11.78, 95% CI [-13.34, -10.23], p <.001). Effect sizes were large at post-treatment (d = -1.73) and follow-up (d = -2.67), supporting the hypothesis that ISTDP leads to a larger decrease in depressive symptom levels than the control condition. Moreover, a large-sized effect was found from post-treatment to follow-up (B = -6.50, 95% CI [-8.14, -4.86], p <.001; d = -1.21), indicating that depressive symptom levels decreased significantly more in ISTDP compared to the control condition during the follow-up period. Depressive symptom levels did also decrease in the control condition from baseline to follow-up (B = -1.15, 95% CI [-2.27, -0.04], p = .046), but not from baseline to post-treatment (B = -1.04, 95% CI [-2.15, 0.06], p = .066), or from post-treatment to follow-up (B = 0.92, 95% CI [-0.23, 2.08], p = .127). Among the participants randomized to the ISTDP condition, 29 (67.4%) demonstrated significant improvements, 7 (16.3%) no significant changes, and no one a significant decline in their depressive symptom levels from baseline to post-treatment. Among the control condition participants, 3 (7.0%) demonstrated significant improvements, 36 (83.7%) no significant changes, and no one a significant decline from baseline to post-treatment.

Emotional repression was significantly lower in the ISTDP condition compared to the control condition at both post-treatment (B = -16.12, 95% CI [-18.32, -13.90], p <.001) and follow-up (B = -23.14, 95% CI [-25.57, -20.65], p <.001). Effect sizes were found to be large at post-treatment (d = -1.91) and follow-up (d = -2.69), supporting the hypothesis that ISTDP

leads to a larger decrease in emotional repression than the control condition. Additionally, a large-sized effect was found from post-treatment to follow-up (B = -9.26, 95% CI [-11.71, -6.78], p <.001; d = -0.81), suggesting that emotional repression reduced significantly more in the ISTDP condition than in the control condition during the follow-up period. Time effects indicated that emotional repression did also decrease in the control condition from baseline to post-treatment (B = -1.65, 95% CI [-3.18, -0.07], p = .043; d = -0.20) and from baseline to follow-up (B = -3.13, 95% CI [-4.87, -1.39], p <.001; d = -0.36), but not from post-treatment to follow-up (B = -0.41, 95% CI [-2.19, 1.33], p =.652).

Negative affect was significantly lower in the ISTDP condition compared to the control condition at both post-treatment (B = -12.96, 95% CI [-15.68 to -10.27], p <.001) and follow-up (B = -16.24, 95% CI [-18.61, -13.87], p <.001). Effect sizes were found to be large at post-treatment (d = -1.45) and follow-up (d = -1.85), supporting the hypothesis that ISTDP leads to a larger decrease in negative affect than the control condition. Additionally, a moderate-sized effect was found from post-treatment to follow-up (B = -5.34, 95% CI [-7.77, -2.91], p <.001; d = -0.50), indicating that negative affect was reduced significantly more in the ISTDP than in the control condition during the follow-up period. Non-significant time effects indicated that negative affect did not decrease from baseline to post-treatment/follow-up, or from post-treatment to follow-up in the control condition (all ps >.05). Among the participants randomized to the ISTDP condition, 31 (72.1%) demonstrated significant improvements, 4 (9.3%) no significant changes, and 1 (2.3%) a significant decline in negative affect from baseline to post-treatment. Among the control condition participants, 3 (7.0%) demonstrated significant improvements, 35 (81.4%) no significant changes, and 1 (2.3%) a significant decline from baseline to post-treatment.

The sensitivity analyses with imputed post-treatment and/or follow-up scores, only including participants who completed all assessments, and only including participants who

had two or more previous unsuccessful antidepressant trials resulted in similar patterns of the main findings (Appendix Table A.1, A.2, and A.3, respectively). No significant therapist effects were found with regard to dropout (χ^2 (1, 43) = 0.12, p = .729), depressive symptom level at post-treatment (B = -0.21, *SE* = 1.63, p = .899) and follow-up (B = 0.85, *SE* = 1.62, p = .795), or emotional repression at post-treatment (B = 2.05, *SE* = 2.00, p = .315) and follow-up (B = 3.81, *SE* = 2.01, p = .175). A significant therapist effect was present for negative affect at post-treatment (B = 5.77, *SE* = 2.62, p = .035) and follow-up (B = 4.47, *SE* = 2.28, p = .034; Appendix Table A.4), indicating that for one of the therapists, participants showed larger reductions in negative affect.

Discussion

This RCT examined the effects of ISTDP on depressive symptoms, emotional repression, and negative affect in adults with TRD. Since, ISTDP is theorized to decrease symptoms by challenging patients' defense mechanisms and allowing for processing of unconscious attachment-trauma-related emotions, ISTDP could be expected to reduce emotional repression in TRD, but this has yet to be empirically established. The current study aimed to add to the promising but small body of literature on ISTDP for TRD by examining this hypothesis. Moreover, while ISTDP has been found efficacious in treating TRD (Town et al., 2017), previous studies have focused on depressive symptom reduction as the main efficacy indicator. As ISTDP is not a symptom-focused treatment (like CBT) but an emotion-focused treatment, it could be expected to reduce negative affect more broadly. The current study aimed to add to the available literature by testing this hypothesis too.

As hypothesized, ISTDP was more efficacious than the control condition in reducing depressive symptom levels with further improvements shown during the three months after treatment had ended. These findings are in line with a previous RCT, which also indicated ISTDP as an efficacious treatment for TRD in the short- and long-term (Town et al., 2020).

Depression effect sizes in the current study were larger than in that other RCT (post-treatment: d = -1.73 in the current study vs. d = -0.57 in Town et al., 2017; 3-month follow-up: d = -2.67 in the current study vs. d = -0.60 in Town et al., 2020). These differences might be accounted for by the current study applying a waitlist control condition, whereas the control condition in Town et al. (2017) comprised treatment-as-usual, consisting of pharmacotherapy and clinical management, as well as counseling or CBT for some participants. The continued improvement during the follow-up period has also been observed in meta-analyses of psychodynamic psychotherapy for various mental disorders (Abbass et al., 2014; Town et al., 2012), and has been hypothesized to result from the patient's increased insight into maladaptive interpersonal and (unconscious) intrapsychic patterns (Abbass et al., 2014).

Additionally, as hypothesized, ISTDP resulted in a larger decrease in emotional repression than the control condition, with further improvements again being present during the 3-month follow-up period. This finding is in line with the theoretical base of ISTDP, which poses that challenging defense mechanisms and subsequent working through unprocessed attachment-trauma-related emotions results in decreased emotional repression (Abbass & Town, 2013). Whether this effect is specific to ISTDP is unknown, as emotional repression is a concept rooted in psychodynamic theory (Kehyayan et al., 2018) and understudied in other psychotherapies for TRD. Although this study's findings align with the idea that ISTDP reduces emotion repression, which in turn results in a decrease in negative affect, this study's design does not allow for testing such a mediating relationship. Future research is needed to establish the working mechanisms of ISTDP for TRD.

Moreover, as hypothesized, ISTDP was superior to the control condition in decreasing negative affect at post-treatment and follow-up. These findings indicate that ISTDP can improve negative affect in TRD. This aligns with the goal of psychodynamic psychotherapy,

which goes beyond alleviating symptoms and aims to foster patients' general mental well-being through self-reflection, self-discovery, and self-exploration (Shedler, 2010). It is also unclear, however, whether improvements in negative affect are specific to ISTDP. A previous meta-analysis (Boumparis et al., 2016) found that negative affect also decreased in depressed adults being treated with other types of psychotherapy, but the effect size was noticeably smaller (Hedge's $g = 0.32$, 95% CI [0.15, 0.78], $p < .001$) than the effect size found in the current study. While this suggests that ISTDP might be particularly efficacious in decreasing negative affect in depressed patients, a direct comparison between ISTDP and other types of psychotherapy is needed to support this claim.

Strengths and Limitations

This study has several strengths. First, this RCT was conducted independently from the research group that conducted the two existing ISTDP for TRD studies, which is important to rule out investigator effects and a prerequisite to establish an intervention as empirically-supported (Chambless & Hollon, 1998). Second, to the best of the authors' knowledge, this study is the first to assess negative affect and emotional repression in ISTDP for TRD, thereby empirically testing important theoretical assumptions. Third, the randomized controlled design minimized the risk of unobserved confounders biasing results, and intention-to-treat analyses were conducted to minimize attrition bias. Fourth, the study's dropout rate was relatively low (12.8%) and comparable to the previous RCT on ISTDP for TRD (13.3%; Town et al., 2017).

This study also has several limitations. First, depressive symptoms were assessed with the WAI depression subscale, which is not a frequently applied depressive symptom measure. Although assessing depressive symptoms in this way minimized participant burden, the use of a more frequently used measure (e.g., Patient Health Questionnaire; Kroenke et al., 2001) would have facilitated comparison with other trials. Second, ISTDP was compared to a non-

active control condition, which might have inflated treatment effects due to the nocebo effect (participants in the control condition expecting no improvements and giving up coping strategies while waiting to be treated; Furukawa et al., 2014). Additionally, positive expectations of patients in an experimental condition have been associated with larger treatment effects (Greenberg et al., 2006), for which the current study did not control. Also, treatment effects might have been influenced by allegiance effects (researchers finding larger treatment effects regarding their preferred treatments), a phenomenon that has been widely observed in psychotherapy outcome studies (Munder et al., 2013). In this regard, it should be noted that the first author was one of the trial therapists and all authors have an interest in psychodynamic treatment approaches. Third, while ISTDP was conducted according to a treatment manual and delivered by experienced therapists, adherence was not objectively assessed. It was, however, checked during supervision based on videotaped treatment sessions by a senior IEDTA therapist. Also, the two therapists provided ISTDP in private practice in Iran and it is unclear whether findings generalize to other therapists and treatment settings. Related, the study sample was predominantly female and highly educated, and relatively small, which should also be considered when generalizing this study's findings. Fourth, TRD was defined as not having responded to at least one antidepressant at the recommended dose and duration and a current depressive episode of six weeks or longer. These criteria were chosen to align with the previous RCT on ISTDP for TRD (Town et al., 2017). However, other more strict definitions of TRD have also been proposed (Fava, 2003), which potentially represent patient groups with varying degrees of treatment resistance. Repeating the analyses including only participants with at least two previous unsuccessful antidepressant trials resulted in a similar pattern of findings, however. Fifth, outcomes were assessed with self-report questionnaires for practical reasons and because of limited resources. Self-report measures, however, have been argued to be susceptible to response biases such as social

desirability bias (van de Mortel, 2008), as well as only correlating moderately with observer-rated (Van et al., 2009) or behavioral measures (Dang et al., 2020). This might especially be true for performance-based skills such as emotional repression.

Clinical Implications

The current findings extend the evidence base of ISTDP for TRD by establishing its effects independently from the research group that conducted the two existing studies (Chambless & Hollon, 1998). Furthermore, the findings show that ISTDP for TRD's effect is not limited to depressive symptoms (Town et al., 2017), but that negative affect is more broadly reduced. Finally, ISTDP can decrease emotional repression, which is consistent with its presumed working mechanisms. Together, this indicates that ISTDP might be a promising treatment for TRD. This is of considerable relevance, as TRD is a prevalent disorder associated with significant personal and societal costs (Greden, 2001), for which other psychotherapies have failed to be shown efficacious relative to treatment-as-usual (van Bronswijk et al., 2018).

Another important clinical consideration is the setting this study was conducted in. Unlikely most previous research on ISTDP, which has dominantly been conducted in western countries, such as Italy, Canada, or the USA (Abbass et al., 2012), this trial was implemented in Iran. It has been argued that psychodynamic psychotherapies are deeply rooted in a European/Western socio-cultural context, raising the question of whether they can be implemented in other cultures (Heidari et al., 2013). However, ISTDP is not uncommon in Iranian research and clinical practice, which might be accounted for by psychodynamic thought and treatment being prominent in Iran since the 1950s (Javanbakht & Sanati, 2006). Indeed Habib Davanloo, who developed ISTDP, is of Iranian descent. In addition, similarities have been observed between Iranian folklore and psychodynamic concepts such as Freud's structural model of the mind (Javanbakht & Sanati, 2006). In line with this, the results of the

current trial indicate that ISTDP seems to be a well-suited treatment approach for TRD in the Iranian cultural context. Similar findings have been reported for other psychodynamic psychotherapies for depression (Heidari et al., 2013), and regarding ISTDP for other patient groups in Iran (Abed et al., 2020). A potential explanation for this is ISTDP's focus on emotions and interpersonal relationships (Johansson et al., 2014), which aligns well with the Iranian collectivist culture and the importance and influence of the extended family (Heidari et al., 2013; Rudy & Grusec, 2006). Another potential reason for the efficacy of ISTDP for TRD in an Iranian setting is the characteristic symptom profile of depression in Iranian samples, which often includes somatic symptoms such as headaches, irritability, or physical pain (Seifsafari et al., 2013). ISTDP has shown to be efficacious in decreasing somatic symptoms (Abbass et al., 2012), and acknowledges somatic symptoms as a result of unconscious emotions (Abbass et al., 2013; Davanloo, 2001). Notwithstanding different symptom profiles, in terms of DSM criteria, the inclusion criteria of this study are in line with many other depression treatment RCTs that included participants with MDD as established with the MINI (e.g., Driessen et al., 2013). Also, baseline PANAS scores were comparable to other Iranian and European/North American samples of studies on TRD (Dastani et al., 2022; Gowdin et al., 2023; Mirzaee et al., 2018).

Future Directions

Given the previously described limitations of this study, future research on the efficacy of ISTDP for TRD is warranted. More specifically, the field needs RCTs comparing ISTDP to other bona fide treatments for TRD such as antidepressant medication, or cognitive behavioral analysis of psychotherapy. These future trials should assess outcomes and mediators at multiple assessment points during the treatment period or consider implicit-mediation designs (Bullock et al., 2021) to facilitate examination of the presumed working mechanisms of ISTDP. Preferably, such trials should balance allegiance bias between conditions and include

measures of depressive symptoms and emotional repression scored by observers who are unaware of treatment assignment. Also, attention should be given to objective adherence ratings, larger therapist pools, and a heterogeneous study sample including individuals with lower education levels and socioeconomic status. This future research would be an important next step to establish whether ISTDP holds its promise of being an efficacious treatment option for TRD.

Author contribution statements

Rasoul Heshmati: Conceptualization, Funding acquisition, Investigation, Project administration, Writing – original draft

Frederik J. Wienicke: Formal analysis, Writing – review & editing

Ellen Driessen: Formal analysis, Writing – review & editing

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Table 1

Baseline Characteristics of the Study Sample

	Total (N = 86)		ISTDP (N = 43)		Control (N = 43)					
	Mean	*SD*	Mean	*SD*	Mean	*SD*	*t*	*df*	*p*	95% CI
Age	36.90	11.73	36.53	12.32	37.26	11.25	0.28	84	.778	-5.78 to 4.34
WAI-Depression	30.23	4.16	30.07	4.59	30.40	3.72	0.36	84	.719	-1.47 to 2.12
WAI-RRC	77.53	8.33	77.34	8.75	77.73	7.97	0.22	84	.831	-3.20 to 3.98
PANAS-NA	35.87	8.87	35.63	8.20	36.12	9.59	0.25	84	.800	-3.34 to 4.31
Number previous ADM trials	1.84	0.94	1.81	1.01	1.86	0.89	-0.23	84	.821	-0.45 to 0.36
	N	%	*N*	%	*N*	%	χ^2	*df*	*p*	
Gender							0.44	1	.506	
Male	33	38.4	15	34.9	18	41.9				
Female	53	61.6	28	65.1	25	58.1				
Marital status							2.02	2	.364	
Single	28	32.6	17	39.5	11	25.6				
Married	48	55.8	22	51.2	26	60.5				
Widowed/Divorced	10	11.6	4	9.3	6	14.0				
Education level							1.20	2	.549	
High school	33	38.4	18	41.9	15	34.9				
Undergraduate	37	43.0	16	37.2	21	48.8				
Graduate	16	18.6	9	20.9	7	16.3				

Employment status							5.51	2	.064
Employed	46	53.5	18	41.9	28	65.1			
Unemployed	30	34.9	20	46.5	10	23.3			
Retired	10	11.6	5	11.6	5	11.6			
Socioeconomic status [a]							0.14	2	.934
Low	13	15.1	6	14.0	7	16.3			
Middle	56	65.1	28	65.1	28	65.1			
High	17	19.8	9	20.9	8	18.6			
Current ADM use							0.28	1	.596
Yes	68	79.1	33	76.7	35	81.4			
No	18	20.9	10	23.3	8	18.6			
Meeting DSM-IV MDD criteria[b]									
Yes	86	100	43	100	43	100			
No	0	0	0	0	0	0			

Note. ADM = Antidepressant medication; Control = control condition; DSM-IV = Diagnostic and statistical manual of mental disorders – fourth edition; ISTDP = Intensive short-term dynamic psychotherapy; MDD = Major Depressive Disorder; PANAS-NA = Positive and Negative Affect Schedule – negative affect subscale; WAI-Depression = Weinberger Adjustment Inventory – depression subscale; WAI-RRC = Weinberger Adjustment Inventory – repressive/restraint composite.

[a] Socioeconomic status based on personal income: <30 million IR (approx. $710) = low, 30-80 million IR (approx. $710 to $1890) = middle, >80 million IR (more than approx. $1890) = high.

[b] All participants fulfilled the DSM-IV MDD criteria so no statistical test could be conducted.

Table 2

Comparison of Baseline Characteristics between Participants who did and did not Complete the Post-Treatment and Follow-up Assessments

Variable	Completers (N = 75)		Non-Completers (N = 11)					
	Mean	*SD*	Mean	*SD*	*t*	*df*	*p*	95% CI
Age	36.45	12.12	39.91	8.48	0.91	84	.365	-11.00 to 4.09
WAI-Depression	30.37	4.26	29.27	3.41	0.82	84	.416	-1.57 to 3.78
WAI-RRC	77.70	7.51	76.42	13.04	-0.32	10.99	.758	-10.14 to 7.59
PANAS-NA	35.77	8.80	36.55	9.78	0.27	84	.789	-4.96 to 6.50
Number previous ADM trials	1.84	0.99	1.81	0.60	0.71	84	.943	-0.59 to 0.63
	N	%	*N*	%	χ^2	*df*	*p*	
Gender					1.31	1	.253	
Male	31	41.3	2	18.2				
Female	44	58.7	9	81.8				
Marital status					0.13	2	.936	
Single	24	32.0	4	36.4				
Married	42	56.0	6	54.5				
Widowed/Divorced	9	12.0	1	9.1				
Education level					0.29	2	.863	
High school	28	37.3	5	45.5				
Undergraduate	33	44.0	4	36.4				
Graduate	14	18.7	2	18.2				

Employment status					2.98	2	.226
Employed	39	52.0	7	63.6			
Unemployed	26	34.7	4	36.4			
Retired	10	13.3	0	0.0			
Socioeconomic status [a]					1.07	2	.586
Low	11	14.7	2	18.2			
Middle	48	64.0	8	72.7			
High	16	21.3	1	9.1			
Current ADM use					1.26	1	.262
Yes	58	77.3	10	90.9			
No	17	22.6	1	9.1			
Meeting DSM-IV MDD criteria[b]							
Yes	75	100	11	100			
No	0	0	0	0			

Note. ADM = Antidepressant medication; DSM-IV = Diagnostic and statistical manual of mental disorders – fourth edition; MDD = Major Depressive Disorder; PANAS-NA = Positive and Negative Affect Schedule – negative affect subscale; WAI-Depression = Weinberger Adjustment Inventory – depression subscale; WAI-RRC = Weinberger Adjustment Inventory – repressive/restraint composite.

[a] Socioeconomic status based on personal income: <30 million IR (approx. $710) = low, 30-80 million IR (approx. $710 to $1890) = middle, >80 million IR (more than approx. $1890) = high.

[b] All participants fulfilled the DSM-IV MDD criteria so no statistical test could be conducted.

Table 3

Observed Means & Standard Deviations of the WAI-Depression, WAI-RRC, & PANAS-NA per Treatment Condition and Assessment Moment

	WAI-Depression								
	Baseline			Post-Treatment			Follow-up		
	N	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*
ISTDP	43	30.07	4.59	36	21.81	5.18	36	17.33	5.37
Control	43	30.40	3.72	39	29.33	3.72	39	29.23	4.13
	WAI-RRC								
ISTDP	43	77.34	8.75	36	59.58	6.95	36	51.09	7.56
Control	43	77.73	7.97	39	76.31	8.95	39	74.81	9.49
	PANAS-NA								
ISTDP	43	35.63	8.20	36	21.72	6.95	36	17.64	6.46
Control	43	36.12	9.59	39	35.15	10.49	39	34.38	9.86

Note. Control = control condition; ISTDP = Intensive short-term dynamic psychotherapy; PANAS-NA = Positive and Negative Affect Schedule – negative affect subscale; WAI-Depression = Weinberger Adjustment Inventory – depression subscale; WAI-RRC = Weinberger Adjustment Inventory – repressive/restraint composite.

Scores represent observed values of participants completing the measure at the given time point.

Table 4

Unstandardized and Standardized Effect Size Estimates of Depressive Symptoms, Emotional Repression, and Negative Affect in ISTDP for TRD (N = 86)

Outcome	Comparison	Parameter	B	95% CI	*p*	*d*
WAI-Depression	Baseline to post-treatment	Time	-1.04	-2.15 to 0.06	.066	-0.24
		Time x Treatment	**-7.41**	**-8.91 to -5.90**	**<.001**	**-1.73**
	Baseline to follow-up	Time	**-1.15**	**-2.27 to -0.04**	**.046**	**-0.26**
		Time x Treatment	**-11.78**	**-13.34 to -10.23**	**<.001**	**-2.67**
	Post-treatment to follow-up	Time	0.92	-0.23 to 2.08	.127	0.17
		Time x Treatment	**-6.50**	**-8.14 to -4.86**	**<.001**	**-1.21**
WAI-RRC	Baseline to post-treatment	Time	**-1.65**	**-3.18 to -0.07**	**.043**	**-0.20**
		Time x Treatment	**-16.12**	**-18.32 to -13.90**	**<.001**	**-1.91**
	Baseline to follow-up	Time	**-3.13**	**-4.87 to -1.39**	**<.001**	**-0.36**
		Time x Treatment	**-23.14**	**-25.57 to -20.65**	**<.001**	**-2.69**
	Post-treatment to follow-up	Time	-0.41	-2.19 to 1.33	.652	-0.04
		Time x Treatment	**-9.26**	**-11.71 to -6.78**	**<.001**	**-0.81**
PANAS-NA	Baseline to post-treatment	Time	-0.87	-2.81 to 1.09	.382	-0.10
		Time x Treatment	**-12.96**	**-15.68 to -10.27**	**<.001**	**-1.45**
	Baseline to follow-up	Time	-1.65	-3.35 to 0.08	.056	-0.19
		Time x Treatment	**-16.24**	**-18.61 to -13.87**	**<.001**	**-1.85**
	Post-treatment to follow-up	Time	0.20	-1.52 to 1.95	.817	0.02
		Time x Treatment	**-5.34**	**-7.77 to -2.91**	**<.001**	**-0.50**

Note. ISTDP = Intensive short-term dynamic psychotherapy; PANAS-NA = Positive and Negative Affect Schedule – negative affect subscale; TRD = Treatment-resistant depression; WAI-Depression = Weinberger Adjustment Inventory – depression subscale; WAI-RRC = Weinberger Adjustment Inventory – repressive/restraint composite.

Estimates are based on the intention-to-treat sample, including all participants randomized.

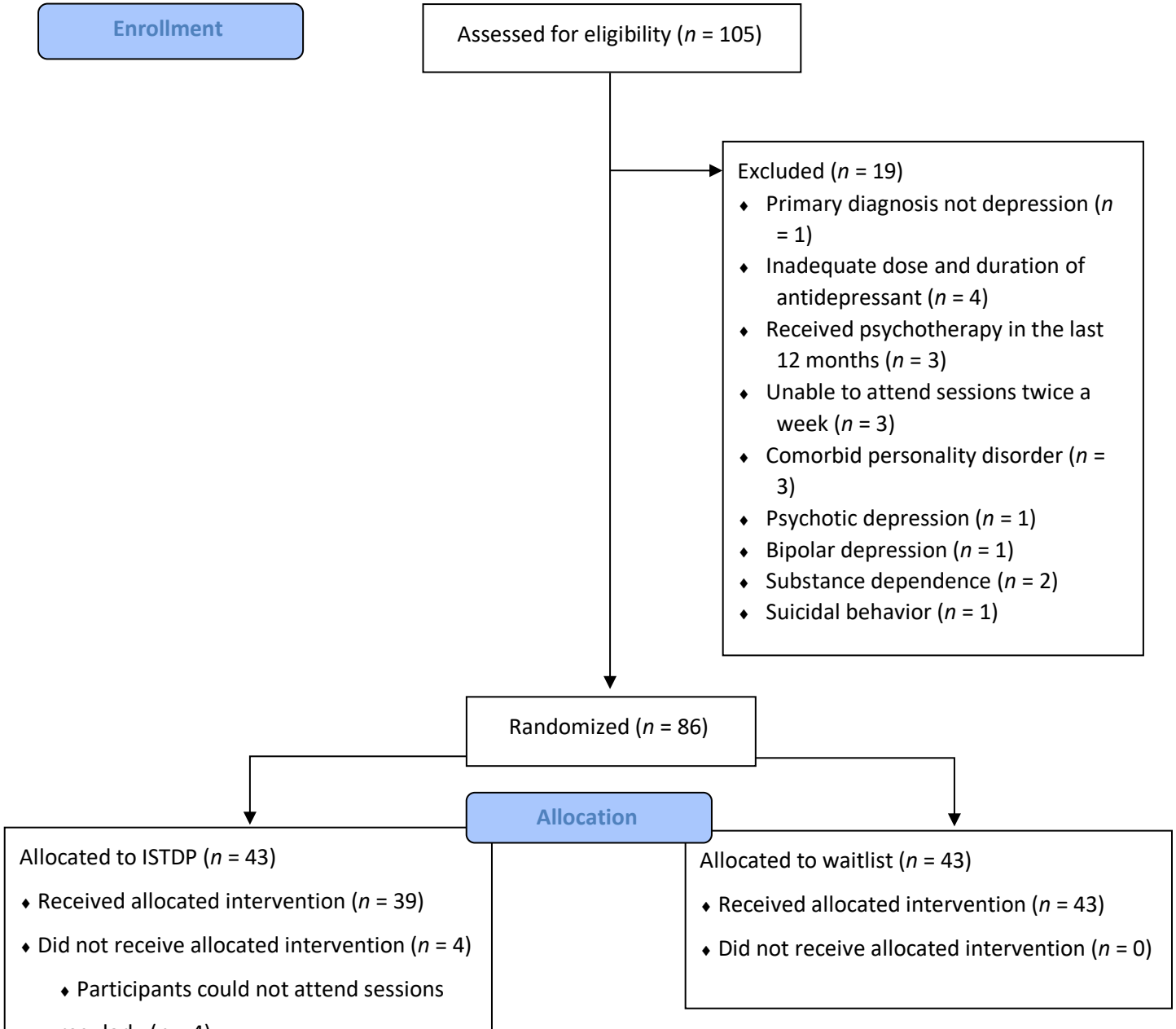
Time estimates indicate the time effect in the control group for the respective comparison.

Negative effect sizes of time-by-treatment interaction indicate a superiority of ISTDP over the control condition.

Statistical significance ($p < .05$) is indicated by bold printed numbers.

Figure 1

CONSORT Flow Diagram



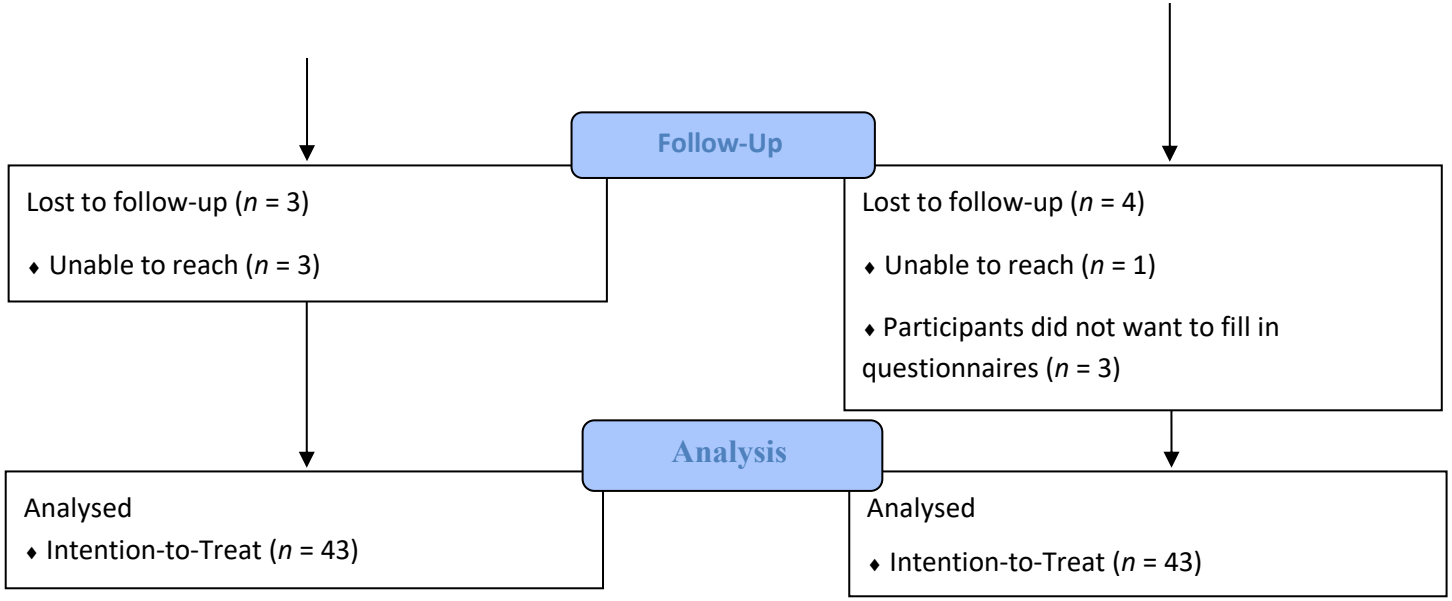
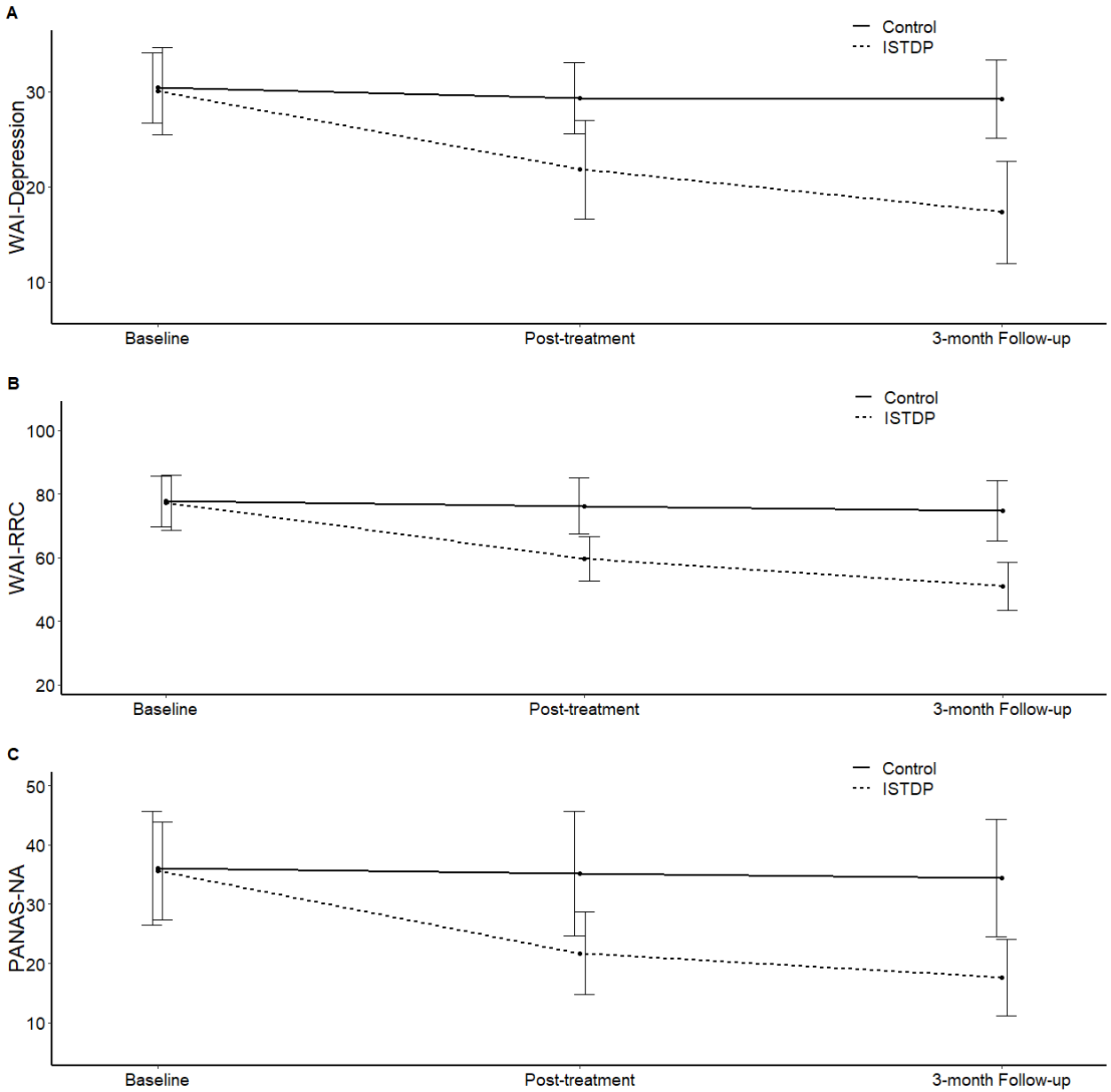


Figure 2

Observed Mean WAI-Depression, WAI-RRC, and PANAS-NA scores per Treatment Condition and Assessment Moment


A
Control
ISTDP
WAI-Depression
30
20
10
Baseline
Post-treatment
3-month Follow-up
B
Control
ISTDP
WAI-RRC
100
80
60
40
20
Baseline
Post-treatment
3-month Follow-up
C
Control
ISTDP
PANAS-NA
50
40
30
20
10
Baseline
Post-treatment
3-month Follow-up

Note. Control = Control condition; ISTDP = Intensive short-term dynamic psychotherapy; PANAS-NA = Positive and Negative Affect Schedule – negative affect subscale score; WAI-Depression = Weinberger Adjustment Inventory – depression subscale; WAI-RRC = Weinberger Adjustment Inventory – repressive/restraint composite score.

Table A.1

Unstandardized Effect Size Estimates of Depression Severity, Emotional Repression, and Negative Affect in ISTDP for TRD – Sensitivity Analyses with Multiple Imputation of Missing Post-Treatment and/or Follow-Up Scores (N = 86)

Outcome	Comparison	Parameter	B	*SE*	*p*
WAI-Depression	Baseline to post-treatment	Time	-1.61	1.38	.256
		Time x Treatment	**-6.39**	**1.35**	**<.001**
	Baseline to follow-up	Time	-1.63	1.36	.243
		Time x Treatment	**-10.14**	**1.31**	**<.001**
	Post-treatment to follow-up	Time	1.22	0.81	.132
		Time x Treatment	**-6.24**	**1.10**	**<.001**
WAI-RRC	Baseline to post-treatment	Time	-2.38	2.71	.388
		Time x Treatment	**-15.02**	**2.66**	**<.001**
	Baseline to follow-up	Time	-3.63	2.75	.201
		Time x Treatment	**-20.66**	**2.53**	**<.001**
	Post-treatment to follow-up	Time	1.16	1.52	.446
		Time x Treatment	**-10.47**	**2.07**	**<.001**
PANAS-NA	Baseline to post-treatment	Time	-1.11	2.21	.619
		Time x Treatment	**-11.05**	**2.11**	**<.001**
	Baseline to follow-up	Time	-1.25	2.21	.576
		Time x Treatment	**-14.34**	**2.11**	**<.001**
	Post-treatment to follow-up	Time	1.33	1.22	.279
		Time x Treatment	**-6.22**	**1.67**	**<.001**

Note. ISTDP = Intensive short-term dynamic psychotherapy; PANAS-NA = Positive and Negative Affect Schedule – negative affect subscale; TRD = Treatment-resistant depression; WAI-Depression = Weinberger Adjustment Inventory – depression subscale; WAI-RRC = Weinberger Adjustment Inventory – repressive/restraint composite.

Time estimates indicate the time effect in the control group for the respective comparison.

Negative beta weights of time-by-treatment interaction indicate a superiority of ISTDP over the control condition.

Statistical significance ($p < .05$) is indicated by bold printed numbers.

Table A.2

Unstandardized Effect Size Estimates of Depression Severity, Emotional Repression, and Negative Affect in ISTDP for TRD – Sensitivity Analyses Including Only Participants who Completed all Assessments (N = 75)

Outcome	Comparison	Parameter	B	*SE*	*p*
WAI-Depression	Baseline to post-treatment	Time	-1.10	0.57	.057
		Time x Treatment	**-7.41**	**0.77**	**<.001**
	Baseline to follow-up	Time	**-1.20**	**0.58**	**.039**
		Time x Treatment	**-11.78**	**0.79**	**<.001**
	Post-treatment to follow-up	Time	0.77	0.59	.199
		Time x Treatment	**-6.19**	**0.83**	**<.001**
WAI-RRC	Baseline to post-treatment	Time	-1.51	0.78	.057
		Time x Treatment	**-16.39**	**1.09**	**<.001**
	Baseline to follow-up	Time	**-2.88**	**0.88**	**<.001**
		Time x Treatment	**-23.51**	**1.22**	**<.001**
	Post-treatment to follow-up	Time	-0.33	0.90	.712
		Time x Treatment	**-9.30**	**1.28**	**<.001**
PANAS-NA	Baseline to post-treatment	Time	-0.84	0.99	.398
		Time x Treatment	**-12.96**	**1.38**	**<.001**
	Baseline to follow-up	Time	-1.02	0.85	.232
		Time x Treatment	**-16.85**	**1.19**	**<.001**
	Post-treatment to follow-up	Time	0.67	0.86	.436
		Time x Treatment	**-5.66**	**1.22**	**<.001**

Note. ISTDP = Intensive short-term dynamic psychotherapy; PANAS-NA = Positive and Negative Affect Schedule – negative affect subscale; TRD = Treatment-resistant depression; WAI-Depression = Weinberger Adjustment Inventory – depression subscale; WAI-RRC = Weinberger Adjustment Inventory – repressive/restraint composite.

Time estimates indicate the time effect in the control group for the respective comparison. Negative beta weights of time-by-treatment interaction indicate a superiority of ISTDP over the control condition.

Statistical significance ($p < .05$) is indicated by bold printed numbers.

Table A.3

Unstandardized Effect Size Estimates of Depressive Symptoms, Emotional Repression, and Negative Affect in ISTDP for TRD – Sensitivity Analysis Including Only Participants who Reported Two or More Previous Unsuccessful Antidepressant Trials (N = 48)

Outcome	Comparison	Parameter	B	*SE*	*p*
WAI-Depression	Baseline to post-treatment	Time	-1.14	0.64	.084
		Time x Treatment	**-7.22**	**0.91**	**<.001**
	Baseline to follow-up	Time	**-1.57**	**0.70**	**.027**
		Time x Treatment	**-10.89**	**1.01**	**<.001**
	Post-treatment to follow-up	Time	0.86	0.77	.268
		Time x Treatment	**-6.83**	**1.12**	**<.001**
WAI-RRC	Baseline to post-treatment	Time	-1.51	0.87	.091
		Time x Treatment	**-17.52**	**1.36**	**<.001**
	Baseline to follow-up	Time	**-2.51**	**1.10**	**.025**
		Time x Treatment	**-24.03**	**1.69**	**<.001**
	Post-treatment to follow-up	Time	-0.12	1.12	.914
		Time x Treatment	**-8.65**	**1.73**	**<.001**
PANAS-NA	Baseline to post-treatment	Time	-1.63	1.18	.175
		Time x Treatment	**-12.37**	**1.81**	**<.001**
	Baseline to follow-up	Time	-1.94	1.04	.065
		Time x Treatment	**-14.84**	**1.60**	**<.001**
	Post-treatment to follow-up	Time	0.29	1.05	.786
		Time x Treatment	**-3.97**	**1.63**	**.017**

Note. ISTDP = Intensive short-term dynamic psychotherapy; PANAS-NA = Positive and Negative Affect Schedule – negative affect subscale; TRD = Treatment-resistant depression; WAI-Depression = Weinberger Adjustment Inventory – depression subscale; WAI-RRC = Weinberger Adjustment Inventory – repressive/restraint composite.

Time estimates indicate the time effect in the control group for the respective comparison.

Negative beta weights of time-by-treatment interaction indicate a superiority of ISTDP over the control condition.

Statistical significance ($p < .05$) is indicated by bold printed numbers.

Table A.4

Unstandardized Effect Size Estimates of Therapist Effects on Depression Severity, Emotional Repression, and Negative Affect in ISTDP for TRD (N = 43)

Assessment Point	Outcome	Parameter	B	*SE*	*p*
Post-treatment	WAI-Depression	Time	**-8.25**	**1.15**	**<.001**
		Therapist	-0.69	1.49	.643
		Time x Therapist	-0.21	1.63	.899
	WAI-RRC	Time	**-18.84**	**1.42**	**<.001**
		Therapist	-3.30	2.54	.200
		Time x Therapist	2.05	2.00	.315
	PANAS-NA	Time	**-16.69**	**1.85**	**<.001**
		Therapist	-3.18	2.39	.176
		Time x Therapist	**5.77**	**2.62**	**.035**
Follow-up	WAI-Depression	Time	**-13.26**	**1.14**	**<.001**
		Therapist	-0.69	1.54	.653
		Time x Therapist	0.85	1.62	.795
	WAI-RRC	Time	**-28.21**	**1.42**	**<.001**
		Therapist	-3.30	2.55	.201
		Time x Therapist	3.81	2.01	.175
	PANAS-NA	Time	**-20.11**	**1.61**	**<.001**
		Therapist	-3.18	2.24	.160
		Time x Therapist	**4.47**	**2.28**	**.034**

Note. ISTDP = Intensive short-term dynamic psychotherapy; PANAS-NA = Positive and Negative Affect Schedule – negative affect subscale; TRD = Treatment-resistant depression; WAI-Depression = Weinberger Adjustment Inventory – depression subscale; WAI-RRC = Weinberger Adjustment Inventory – repressive/restraint composite.

Statistical significance ($p < .05$) is indicated by bold printed numbers.

Time estimates indicate the average symptom change from baseline to the respective time point.

Significance of the time-by-therapist interaction indicates a differential treatment outcome of patients per therapist.