# Intensive Short-Term Dynamic Psychotherapy for DSM-IV Personality Disorders A Randomized Controlled Trial

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Abstract: This study evaluated the efficacy and long-term effectiveness of intensive short-term dynamic psychotherapy (ISTDP) in the treatment of patients with DSM-IV personality disorders (PD). Twenty-seven patients with PD were randomized to treatment with ISTDP or a minimal-contact, delayed-treatment control condition. ISTDP-treated patients improved significantly more than controls on all primary outcome indices, reaching the normal ranges on both the brief symptom inventory (1.51–0.51, p < 0.001) and inventory of interpersonal problems (1.56–0.67, p < 0.001). When control patients were treated, they experienced benefits similar to the initial treatment group. In long-term follow-up, the whole group maintained their gains and had an 83.3% reduction of personality disorder diagnoses. Treatment costs were thrice offset by reductions in medication and disability payments. This preliminary study of ISTDP suggests it is efficacious and cost-effective in the treatment of PD. Limitations of this study and suggestions for future research are discussed.

**Key Words:** Psychotherapy, short-term, personality disorder, psychodynamic.

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The empirical foundation for various forms of short-term psychodynamic psychotherapy (STPP) for a broad range of disorders is growing (Abbass et al., 2006; Anderson and Lambert, 1995; Leischsenring et al., 2004). However, the evidence base for its use with patients with personality disorders (PD) remains relatively small. A handful of ran-

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domized controlled trials have examined the use of different forms of STPP for PD (Hellerstein et al., 1998; Svartberg et al., 2004; Vinnars et al., 2005; Winston et al., 1994) yet none have studied intensive short-term dynamic psychotherapy (ISTDP), a method that Davanloo (1990, pp. 1–47) developed in the past 20 years specifically for treating patients with PD.

The emphasis of ISTDP is to rapidly help the patient experience unconscious emotions that are leading to unconscious anxiety, symptom disturbances, and various defenses. The main technical interventions are to encourage the awareness and experience of feelings while clarifying and challenging defenses in collaboration with the patient. This process mobilizes "complex transference feelings" with the therapist and simultaneously, the "unconscious therapeutic alliance" which works against the defenses (Davanloo, 1990, pp. 1-47). With the defenses reduced, the patient can then work through unresolved feelings related to broken attachments in the past and other subsequent trauma.

Davanloo's videotape-based research over the past 25 years has resulted in a range of improvements over the method he developed in the 1970s. First, he clarified the types, purpose, timing, and application of each of the main interventions. He elaborated on how to monitor signals of unconscious activation. To broaden the utility of ISTDP, he developed a specialized process called the "graded format" for patients with low anxiety tolerance, depression, somatization, conversion, and dissociative phenomena. (Davanloo, 1990, pp. 47-101) This format, which involves cycles of mobilization of unconscious anxiety and cognitive recapitulation, gradually builds anxiety tolerance making it possible to access unconscious feelings in these more fragile groups of patients. These innovations have greatly increased the proportion of referred patients that are candidates for ISTDP and improved clarity of process compared with earlier iterations of his method (Abbass, 2002b; Davanloo, 2000, pp. 1-37).

ISTDP has appeared clinically effective and costeffective in case series of mixed psychiatric samples (Abbass, 2002a,b, 2003), in a specialized hospital setting for PD (Cornelissen, 2002), and in a sample of patients with treatment resistant depression and PD (Abbass, 2006). These naturalistic studies suggested the method showed promise for patients with PD leading us to the following randomized controlled trial of ISTDP for PD.

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## METHODS

## Participants

Potential participants were referred to site coordinators from treating physicians in the local communities. Those patients who were referred solely for the study and those with personality problems were screened for the study if they did not meet obvious exclusion criteria. They were assessed using computer-assisted Axis I and II diagnostic assessments (SCID-PQ and SCID II PQ) to determine DSM-IV Axis I and II diagnoses (First et al., 1998a, 1998b). Both of these are done by computer questionnaire and corroborated by the interview process and history taking. They were included in the study if they were between the ages of 18 and 70, had a DSM-IV personality disorder, and were willing to provide written informed consent to participate in the study. They were excluded if they had active (within the recent month) suicidal or violent behaviors, substance dependence, organic brain syndrome, bipolar disorder, psychotic disorder, or started new psychotropic medications in the prior 3 months. Overall, they were a group of people who had to be willing to complete serial evaluations, fill out paper work, submit to a possible control condition, be video recorded and be followed-up.

## Procedure

Each participant was provided information about the trial and signed a written consent form if he or she agreed to participate. In phase I, a randomized controlled trial design was used to compare ISTDP therapy to a minimal-contact control condition. All included participants were randomized and stratified by age (over or under 40) and sex. Randomized cards were used so the screener was blind to the allocation before selection of a card. In phase 2, control participants were eventually treated and both groups were followed up an average of 2.1 years later to determine long-term treatment effects, cost effects, and impact on DSM IV personality disorder criteria. The study protocol was approved by the respective ethics boards at the 3 study sites.

## Treatments

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ISTDP was provided in accordance with the therapeutic techniques outlined in Davanloo (2000, pp 37–253). The typical duration of a treatment session was 1 hour and sessions were provided weekly. Treatment was not time limited so there was no set termination date. The therapist and patient mutually decided upon termination. Decisions to stop medications were also made collaboratively with the therapist. For the one nonphysician therapist, these decisions were made with the site screener or the attending family physician.

In the control condition, participants had monthly meetings with the site coordinator which were designed as supportive psychiatric follow-ups. Control participants were informed after randomization that they would start treatment within 3 to 4 months of assessment because a longer wait time was believed to be unethical (Winston et al., 1994). Participants were allowed to continue any existing medications and supportive treatments they had in place, but were not to start new medications or formal psychotherapy. The meetings were approximately 30 minutes in duration and offered support through reviewing the status of current difficulties, status of medication effects and ensuring there was no clinical deterioration requiring attention. Specific elements of ISTDP or other specific psychotherapy interventions were not employed in these meetings.

## Therapists and Settings

All therapists (N = 5) were experienced with ISTDP, with a minimum of 5 years of periodic videotape-based supervision and didactic teaching with Dr. Davanloo. Three were psychiatrists, 1 was a family physician-psychotherapist, and 1 held a master's degree. Four were male and 1 was female, with an average age of 47 years (range 38–62). Therapy was provided free of charge within the Canadian public system, and for a small (\$15 USF) user fee customary at the Minnesota organization where therapy was conducted. Participants treated by the nonphysician therapist were treated pro-bono for purposes of uniformity in this study.

## Measures

The primary outcome measures were the brief symptom inventory (BSI, Derogatis and Melisaratos, 1983) and the inventory of interpersonal problems-64 item version (IIP, Horowitz, et al., 1988). The global severity index from the BSI and the overall score from the IIP were used. Both these measures define cutoff values for a "case" based on how far outside normal sample mean ratings a patient's total and subscale ratings falls. The number of patients meeting case criteria for these scales was noted before and after treatment. Clinician ratings included the GAF-social occupational (GAF-SO) and GAF-symptoms (GAF-S). Secondary measures included the number and monthly cost of medications, selfreported hours of work per week, and each group's employment rate. These measures were used to compare groups on baseline with posttreatment (or postcontrol) change.

At long-term follow-up, all measures noted above were repeated. We also used the number of positive items on the SCID II PQ personality assessment as an indicator of personality disorder burden. Total medication costs and the number of medications used before versus after treatment were compared. Employment rates, disability costs (per Workers Compensation Board 2002 average disability cost figures), and work hours were assessed.

## **Treatment Adherence**

The adherence manual for trial of ISTDP for PD (Abbass, unpublished, available on request from the author) was developed, based on Davanloo's (1990, 2000) published technical descriptions. Examples of adherent activity are psychodiagnostic evaluation, clarification of defenses, and challenge to defenses. The scale was evaluated before this study and found to have high interrater reliability (all  $\kappa > 0.80$ ). An experienced, independent evaluator rated random samples of session videotapes to determine the percentage of time a therapist was adherent across the course of therapy. In this study, all average ratings were above the a priori adherence cutoff.

## **Statistical Analysis**

Within group outcomes were determined using the *t* test for continuous variables and chi square test for binary vari-

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ables. For continuous variables, both raw data and square root transformed data were analyzed, the latter having a less skewed distribution and thus giving a better fit to the normal distribution. Raw data are presented (transformed data yielded identical results). In the case of missing data, last values were imputed by regression for completers and last values were carried forward in the case of dropout.

Multiple regression was used to assess between group effects of treatment. The dependent variables were the posttherapy (or postcontrol) BSI, IIP, GAF-S, or GAF-SO. The independent variables consisted of group assignment and the baseline value of the measured variable. Potential confounders, including main outcome baseline measures, gender, age, educational level, employment status, and marital status were also included in the regression model if they were significant predictors of outcome.

A power analysis was performed using the averaged effect size of the BSI and IIP from previously published data (Abbass, 2002a). It was determined that this sample size of 27 had a probability of 0.90 of detecting a large pre versus posttreatment effect size with  $[\alpha]$  set at 0.05 (Feld and

Erfelder, 1992). In a previous naturalistically collected set of wait list data (Abbass, 2002b) and the study of Winston et al. (1994) there were no significant changes observed in self-report measures so the assumption was there would be little to no change in the outcome measures for the controls.

### RESULTS

#### Sample

Of 51 individuals screened for this study, 44 were offered enrollment (Table 1). Sixteen declined the offer to participate. Of the remainder, 4 did not have a PD, 3 had psychotic disorders, and 1 had an active legal case pending. One participant was randomized to the ISTDP arm and upon starting treatment revealed he was drug dependent. When this was brought into focus he dropped out of the study. He did, however, allow an interview in long-term follow-up.

The most common DSM-IV Axis II diagnoses were borderline (44.4%), obsessive compulsive (37.0%), and avoidant (33.3%). These 3 diagnoses were also the most common found in a recent study of PD incidence in psychi-

Variable N, % or Mean (SD)	ISTDP	Control	Whole Sample	<i>p</i> *	
N	14	13	27	_	
Age	42.4 (11)	38.2 (5.6)	40.3 (8.9)	0.21	
Female (%)	42.8	76.9	59.3	0.07	
Married (%)	50.0	46.1	48.1	0.35	
Employment rate (%)	42.8	84.6	65.4	< 0.01	
Unemployment duration (wks)	63.6 (59)	63.5 (66)	63.6 (44)	0.99	
University degree (%)	78.6	69.2	74.1	0.40	
Suicide attempts	1.7 (1.9)	1.2 (0.98)	1.4 (1.4)	0.58	
Parasuicide/self-injury episodes	19.9 (36)	7.7 (12)	13.7 (27)	0.16	
Previous psychotherapy sessions	63.0 (70)	28.9 (22)	45.0 (53)	0.13	
On psychotropic medications (%)	85.7	61.5	74.1	0.15	
Mean duration on medications (mo) DSM-IV axis I diagnoses ( <i>N</i> )	20.0 (17)	5.4 (4.9)	14.4 (15)	0.05	
Major depression	10	5	15	< 0.01	
Dysthymic disorder	5	8	13	0.03	
Generalized anxiety disorder	7	6	13	0.78	
Panic disorder	6	4	10	0.29	
Social anxiety disorder	4	4	8	0.73	
Substance abuse	4	2	6	0.15	
Eating disorder	3	3	6	0.91	
Somatoform disorder	3	2	5	0.69	
DSM-IV axis II diagnoses (N)					
Borderline	6	6	12	0.70	
Obsessive compulsive	5	5	10	0.72	
Avoidant	7	2	9	< 0.01	
Personality disorder NOS	2	4	6	0.16	
Paranoid	2	3	5	0.39	
Dependant	2	0	2		
Narcissistic	2	0	2		
Antisocial	1	0	1		
Histrionic	0	1	1	_	

\*Two-tailed t test or chi square.

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atric outpatients (Zimmerman et al., 2005). Comorbid major depression, dysthymic disorder, generalized anxiety disorder, and panic disorder all occurred at frequencies of over 1 of 3 of the sample. Twelve had dissociative symptoms (8 in ISTDP and 4 controls) with histories of sexual and/or physical abuse and childhood neglect.

The sample had frequent disability and inadequate responses to previous medications and psychotherapy. Based on baseline GAF, BSI, and IIP ratings, the sample as a whole was significantly distressed and impaired. BSI and IIP "case" criteria were met in 24 (88.8%) and 17 (57.8%) of the 27 participants. However, nearly 1 of 2 were married and 3 of 4 had completed a university degree.

Participants in the ISTDP group were on medications significantly longer than controls and were more likely to be unemployed. More in the ISTDP group had depression whereas more controls had dysthymic disorder. More ISTDP group participants met criteria for avoidant PD.

## Phase I: RCT Outcomes

Those treated with ISTDP had an average of 27.7 (*SD* 20, range 2–64) treatment sessions and, during this time, mean ratings moved into the normal range for both BSI and IIP (Table 2). They significantly outperformed controls on each measure. During the minimal contact control period of 14.8 weeks (*SD* 20, range 10–17.5), this group experienced a significant improvement on the BSI, but not to within the normal range on average. Likewise, clinicians rated them as having a modest but statistically significant improvement on the GAF-S. No other measure showed a significant change in the control condition.

The ISTDP treatment group made functional gains whereas controls did not. Work hours more than doubled in the ISTDP group and all were employed by the end of therapy. In the control condition, 1 worker became unemployed. ISTDP treated participants stopped 69% of all medications.

Likewise, multiple regression analyses, adjusting for confounders, found that the ISTDP treated group underwent significantly greater improvement than control patients (BSI t = 2.11, p < 0.05, IIP t = 4.87, p < 0.01, GAF-S t = 2.3, p < 0.05, GAF-SO t = 2.44, p < 0.05). These findings were consistent with those from paired-samples *t*-tests (for post-condition outcome ratings) reported in Table 2. Baseline BSI

and IIP global ratings were significantly associated with BSI and IIP posttreatment ratings, respectively (t = 2.23, p < 0.05, t = 4.87, p < 0.001). Among the confounding variables included in the analyses, only gender emerged as significant: women derived greater benefit than men on the IIP (t = 3.02, p < 0.01).

## Phase II: Whole Sample Data and Follow-up

Once the control group was provided ISTDP, they made similar gains to the initial ISTDP group (Table 3). Treatment length was virtually the same at 25.6 (*SD* 14) sessions. Using multiple regression analyses controlling for covariates, there was no evidence of any difference in treatment benefits between immediate provision of ISTDP and delayed ISTDP treatment after the control period. This combined group experienced significant and enduring reductions in symptoms, interpersonal problems, and medication need along with gains in occupational functioning. Clinician ratings improved in concordance with patient self-report measures.

In total, 81.5% (22 of 27) of all psychotropic medications were stopped during treatment and 74% (20 of 27) remained discontinued in the follow-up period. All but one who were unemployed were able to return to work during treatment and to maintain this gain during the follow-up interval. Six participants reported receiving increased salaries whereas 5 noted job promotion. Two completed university degrees while continuing to work and 1 retired. The cost reduction due to medication stopping and reduced disability payments was \$137,000 (CDN) per year, far greater than the estimated treatment cost of \$91,000 for the whole group of 27. By 2-year follow-up, the total savings in these 2 domains (\$274,000) was equal to 3 times the treatment cost (\$273,000).

Although no adverse effects or worsening of symptoms was noted, ISTDP treatment was not successful in every case. Two participants failed to respond whereas 3 had slow responses to treatment. One participant remained unemployed and continued to have antisocial personality features. Five continued to take medications albeit at lower dosages in all but 1 case. Six participants met "case" criteria designated by the BSI at termination and 4 continued to do so in follow-up. One patient met IIP case criteria at termination and 2 did so in follow-up.

	ISTDP, $N = 14^{a}$			Control, $N = 13$			Between Group Post vs. Post			
	Pre (SD)	Post (SD)	Statistic	р	Pre (SD)	Post (SD)	Statistic	р	Statistic	р
BSI	1.51 (0.67)	0.51 (0.43)	$t_{13} = 4.95$	< 0.001	1.52 (0.71)	1.10 (0.69)	$t_{12} = 2.38$	0.04	$t_{25} = 2.71$	0.012
IIP	1.56 (0.62)	0.67 (0.66)	$t_{13} = 6.64$	< 0.001	1.28 (0.71)	1.11 (0.57)	$t_{12} = 1.10$	0.29	$t_{25} = 2.08$	0.048
GAF symptoms	60.7 (6.5)	80.0 (10.2)	$t_{13} = 5.50$	< 0.001	61.2 (4.2)	66.5 (9.4)	$t_{12} = 2.28$	0.042	$t_{25} = 3.37$	0.002
GAF social occupational	60.0 (8.71)	78.1 (10.1)	$t_{13} = 4.86$	< 0.001	62.4 (10.2)	64.6 (12.5)	$t_{12} = 1.08$	0.30	$t_{25} = 2.98$	0.006
No. medications	1.3 (0.77)	0.36 (0.49)	$t_{13} = 6.9$	< 0.001	0.69 (0.75)	0.69 (0.75)			$t_{25} = 1.34$	0.18*
Employment rate (%)	42.8	100	$\chi^2 = 7.6$	< 0.01	76.9	69.2	$\chi^2 = 0.25$	0.61	$\chi^2 = 5.05$	0.025
Hours worked per week	21.2 (25.1)	44.3 (19.0)	$t_{12} = 3.66$	0.003	26.3	27.7 (17.6)	$t_{12} = 0.81$	0.43	$t_{24} = 2.96$	0.012

<sup>a</sup>For work hours and employment rate, N was 13 because of retirement and status as student.

\*Difference of the pre-post differences was significant with  $t_{25} = 4.28$ , p < 0.001.

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Variable	Pre ( <i>SD</i> ) <i>N</i> = 27*	Post (SD) N = 27	Pre vs. Post		Follow-Up	Pre vs. Follow-Up	
			Statistic	р	N = 27	Statistic	р
BSI	1.52 (0.71)	0.48 (0.42)	$t_{26} = 7.22$	< 0.001	0.52 (0.50)	$t_{26} = 7.40$	< 0.001
IPP	1.42 (0.62)	0.64 (0.51)	$t_{26} = 7.54$	< 0.001	0.64 (0.52)	$t_{26} = 7.92$	< 0.001
GAF-S	60.9 (0.10)	81.2 (0.17)	$t_{26} = 9.73$	< 0.001	81.2 (0.17)	$t_{26} = 10.10$	< 0.001
GAF-SO	61.2 (0.18)	79.0 (.21)	$t_{26} = 7.67$	< 0.001	81.0 (0.16)	$t_{26} = 9.30$	< 0.001
No. medications	1.0 (0.78)	0.19 (0.40)	$t_{26} = 6.48$	< 0.001	0.26 (0.45)	$t_{26} = 4.16$	< 0.001
Annual medication costs (\$ Cdn)	409 (457)	125 (239)	$t_{26} = 3.88$	0.001	140 (263)	$t_{26} = 3.09$	0.005
Employment rate (%)	65.4	96.1	$\chi^2 = 5.65$	0.017	96.1	$\chi^2 = 5.65$	0.017
Hours worked per week	23.7 (20.7)	37.6 (16.8)	$t_{25} = 3.68$	0.001	43.3 (15.4)	$t_{25} = 3.72$	0.001
Annual disability cost (\$ Cdn)	5781 (10361)	981 (5091)	$t_{26} = 2.61$	0.015	981 (5091)	$t_{26} = 2.61$	0.015

TABLE 3. W	Vhole Group	Outcome a	nd Follow-up	Data
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Participants had 8 PD diagnoses in long-term follow-up compared with 48 at the start. They had the following diagnoses: personality disorder NOS (4), avoidant (1), borderline (1), obsessive compulsive (1), and paranoid (1). At this follow-up they met 56.1% fewer criteria for PD (t = 7.3, p < 0.001).

#### DISCUSSION

### **Main Findings**

This randomized controlled trial offers preliminary evidence that ISTDP is efficacious and cost-effective when used with a range of personality-disordered patients. On all outcome indices, those treated with ISTDP showed superior gains relative to controls. Moreover, both functional and symptomatic gains persisted in long-term follow-up. Treatment more than paid for itself through stopping of medication and returns to work from long disabilities.

We noted the small but significant patient and clinicianrated symptom reduction in the control condition. These sessions were designed to mimic standard psychiatric care, which should offer some benefit to patients often referred in crisis. The support and attention provided in the meetings along with spontaneous symptom resolution seem to have helped bring a measurable relief whereas not bringing significant changes in other domains.

The observed high rate of medication stopping is comparable with findings from naturalistic ISTDP studies of mixed samples, (66% of medications stopped, Abbass, 2002a) and treatment-resistant depression with PD (56% of medications stopped, Abbass, 2006). In addition to treatment effects, this finding may reflect moderation of over-prescribing as clinicians grasp for solutions with their personality disordered and symptomatic patients (Bender et al., 2001).

Most participants (86%) no longer met criteria for any personality disorder at the end of follow-up, although 5 (14%) still met criteria for 1 or more disorder. This compares favorably to results of Vinnars et al. (2005) who found that 33%–58.6% fewer met such criteria after an STPP treatment.

These results also compare favorably with those of early versions of Davanloo's (1980) method when used with patients with primarily cluster C PD. Our study, with perhaps a more challenging sample including borderline and paranoid disorder patients, derived benefits with 1 of 3 fewer sessions than the Winston et al. (1994) study. Our study also found significant improvement on the IIP, whereas Hellerstein et al. (1998) did not. The reason for this possibly superior outcome with a broader sample maybe that this version of ISTDP was developed to improve on the earlier treatment method by bringing new technical interventions to address somatization, depression, and low anxiety tolerance, common in PD. It is also likely that therapists in this study were more experienced with short-term dynamic therapy (>5 years of experience) than the other studies [e.g., >2 years of experience in Winston et al. (1991)].

These encouraging results must be interpreted within the limitations of this study. First, the sample was small, although a power analysis suggested this sample was enough to detect large treatment effects. Second, the use of computerassisted diagnostic assessments may have led to over diagnoses versus formal SCID assessment methods. It is noteworthy that 10 participants did not meet IIP "case" criteria, suggesting this was not a severely affected sample. Third, the control condition was shorter than the treatment period raising the possibility that observed changes could have been a product of time passage. Fourth, there were no blinded outcome ratings, although clinician ratings were in keeping with patient ratings in both treatment and control groups. Finally, the fact that control therapists were also ISTDP therapists introduces allegiance effects which could influence outcomes. However, controls did experience clinician- and self-rated symptomatic improvement suggesting this condition was, at least, not aversive due to biases.

This study had specific strengths that will allow it to serve as a basis for future research. First, the study employed a randomized, prospective design with a control mimicking traditional psychiatric clinic follow-up. This control did yield some benefits with no adverse effects noted, so, this could serve as a longer duration control to match treatment duration in future studies. Second, study therapists were experienced, therapy-specific therapists. This, combined with independent evidence of treatment adherence, suggests treatment fidelity was high in this study. Third, the study sample provided a

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reasonable test of this therapy, being comprised of personality disorder patients in proportions found in real-world samples. Fourth, the range of outcome measures assessed multiple dimensions of function rather than symptoms alone. Finally, long-term follow-up data were gathered to assess the persistence of effects.

## **CONCLUSIONS**

This study offers preliminary evidence that ISTDP is efficacious compared with minimal contact for patients with PD. It adds to existing evidence that the treatment is clinically effective and cost-effective with benefits persisting over the long-term. Future research in ISTDP with this population should address the limitations of this study and incorporate formal cost-benefit analyses. It should also examine the specific impacts of patient factors, therapist factors, and treatment factors (e.g., emotional experiences). Such a study may contribute to ongoing research efforts to elucidate key therapeutic ingredients as they appear across psychotherapy models (Ablon et al., 2006; Kazdin, 2007).

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