

## Intensive Short-term Dynamic Psychotherapy in a Private Psychiatric Office: Clinical and Cost Effectiveness

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**Objective:** To assess the cost and clinical effectiveness of psychiatrist-provided Intensive Short-term Dynamic Psychotherapy (ISTDP) of patients referred to a private office. **Methods:** ISTDP was provided to 89 patients referred to a private psychiatric office in Vancouver, Canada. Pretherapy self-report scores, (BDI, BAI, BSI, IIP [see full names in text]) medication costs, disability costs and healthcare costs were compared with posttherapy values and normative values. **Results:** Patients' mean self-report scores went from the abnormal to normal range after an average of 14.9 hours of therapy. Returns to work, reduced healthcare utilization, and medication stopping accounted for a cost reduction of over Cdn\$400,000 at one year after therapy. **Conclusions:** ISTDP appears to be an effective and cost-effective form of intervention when provided by a psychiatrist in a private office. Randomized controlled studies are warranted to further examine the cost benefits and efficacy of ISTDP.

Short-term dynamic psychotherapies (STDP) have been developed over the past 50 years by a number of proponents, Sifneos, Mann, Malan, and Davanloo, among others. The aim of these therapies was to provide effective and cost-efficient services to patients who otherwise faced long waits in public clinics. The factors common to each of the STDP techniques include increased therapist activity, the use of therapeutic focus, time restrictions, and specific selection criteria. Initial STDP research focusing on cases and case series suggested that the benefits of STDP were substantial and that these benefits were maintained over time (1-3).

From this early work, several forms of STDP evolved and were subjected to randomized controlled trials. Recent systematic reviews have found these treatments to be efficacious with large effect sizes in controlled trials (4, 5). Our current review, funded by the Cochrane Foundation,

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yielded 49 published, controlled STDP trials supporting efficacy with a range of conditions, including personality disorders, substance dependence, depression, and panic disorder.

One of these treatments, Intensive Short-term Dynamic Psychotherapy (ISTDP), has been taught in North American and European training centers over the past 20 years. It is highly regarded for its broad applicability, including patient populations with high resistance, somatization, depression, and fragile character structure. The main technical interventions that distinguish it from other STDP approaches include the focus on emotional experience through use of "pressure" and "challenge" to therapy-defeating resistances. With resistant patients, the bulk of the initial work focuses on feelings and resistances as they form in the therapeutic relationship: this serves to weaken the resistances and give access to underlying feelings. The later processes involve experiencing and working through the unconscious feelings. The technique has a tailored, graded format for patients with low tolerance of anxiety, depression, somatization, and other functional disorders (6).

ISTDP has been empirically developed through detailed case and case-series reviews of videotaped courses of therapy. The founder and main proponent of ISTDP, Davanloo, reported on benefits and maintained gains in a large series of patients in 1980 (7). While this form of therapy is highly regarded by its practitioners and teachers, the research evaluating its efficacy has been criticized for lacking standardized self-report measures and other objective measures of effectiveness.

The goal of the present study was to extend this research by examining whether ISTDP provided by a trained therapist is effective in achieving normalization on standardized self-report measures. A second objective, given ISTDP's relative brevity, was to determine whether ISTDP is cost effective when provided by a psychiatrist in a private clinical setting.

## METHODS

### SAMPLE

Eighty-nine consecutively referred patients who accepted a treatment trial of ISTDP from 1995-1997 were included in this practice evaluation. The mean age of the sample was 39.6 years ( $SD = 9.8$ ), and 45 (52%) were female and 44 (48%) male. Twenty-two (25%) had been off work continuously for a mean of 53.3 weeks. Forty-six (53%) were on a total of 61 psychotropic medications for a mean of 27.4 months. Forty-five (52%) had DSM IV personality disorders on clinical interview. The most common axis I diagnoses were major depression 38 (42.7%), somatoform disorder

33 (37.1%), panic disorder 26 (29.2%) and dysthymic disorder 21 (23.5%).

Seventy-four (83%) of the sample had previously tried psychological therapies while 55 (62.3%) had tried psychopharmacotherapy. While 13 referred patients were not considered good candidates for ISTDP (brain trauma at birth,  $n = 2$ ; depression with psychotic features  $n = 2$ ; bipolar disorder  $n = 1$ ; substance dependence  $n = 8$ ), they were included in this sample to evaluate all efforts using this therapy with a largely treatment resistant population.

#### TREATMENT

Patients were treated in a private psychiatric office in Vancouver, Canada. This practice was primarily a psychotherapy practice, accepting treatment referrals and consultations from other physicians and mental health teams. I treated the patients with ISTDP technique (6). The aim of ISTDP is resolution of symptoms and problematic defense mechanisms. Such mechanisms develop to avoid experiencing feelings toward people in the patient's current life and in the past. Experiencing these feelings resolves the need to avoid through detachment, defensiveness, and symptom formation. I had five years of experience with this technique at the start of this study. Each therapy session was 60 minutes, and the average course of therapy was 14.9 sessions ( $SD = 15.2$ ; Range 1-58). All but one course of therapy was video-recorded for self-review.

Patients with symptom disturbances were offered psychotherapy with or without antidepressant or anxiolytic medications. The decision to continue or modify ISTDP treatment was made after a treatment trial consisting of at least one session of therapy. Low response led to technical modification of therapy, addition of medication or an increase in medication dosage. Patients could reduce and stop medications when they wished with therapist agreement and supervision.

#### OUTCOME MEASURES

Patients were asked to complete self-report questionnaires before beginning therapy and, again, once therapy was terminated. The self-report measures consisted of the Brief Symptom Inventory (BSI) (8), a general symptom scale that encompasses depression and anxiety, the Inventory of Interpersonal Problems (IIP) (9), which assesses a wide range of interpersonal functioning, the Beck Depression Inventory (BDI) (10), and the Beck Anxiety Inventory (BAI) (11), well-established scales of depression and anxiety, respectively. Over the course of the evaluation, the BSI and IIP were introduced as they became available to our department and the BDI

and BAI were subsequently removed. The BSI was considered to be a more suitable general symptom scale encompassing the same areas as the BDI and BAI.

Data were collected from a range of sources to assess changes in system-bearing costs (e.g., healthcare use, unemployment insurance, etc.) resulting from the ISTDP therapy. Aggregated total physician billings and hospital-stay data were obtained through the British Columbia Ministry of Health. Because the year immediately preceding psychiatric consultation may be biased by crisis and increased doctor visits, data were obtained from the 12-month period two years before treatment. These data were compared with data from the 12-month period following treatment. Prescription costs (Cdn\$) were provided courtesy of a national pharmacy chain (Shopper's Drug Mart). Population norms, disability costs, and unemployment rates were provided by provincial (Workers Compensation Board, British Columbia Ministry of Health) and national publicly accessible data sets (Statistics Canada). All were tabulated to compare annual costs to the system before versus after therapy.

## RESULTS

### SELF-REPORTS

Eighty of the 89 patients (90%) completed at least one pre- and post-therapy measure each. Of the nine patients who did not complete outcome forms, two were only seen for one treatment session and, therefore, did not complete any posttherapy measures. The remainder either refused to complete measures ( $n = 1$ ), had limited response, so were not repeated at patient's request ( $n = 3$ ), or dropped out of the treatment ( $n = 3$ ).

Paired sample *t*-tests were conducted to compare pretherapy levels to posttherapy levels on each of the self-report measures. These analyses revealed that mean posttherapy levels were significantly lower than mean pretherapy levels on each measure, for the BSI,  $t(61) = 10.99$ ,  $p < .001$ ; for the IIP,  $t(61) = 9.36$ ,  $p < .001$ ; for the BDI,  $t(72) = 12.30$ ,  $p < .001$ ; and for the BAI,  $t(72) = 11.26$ ,  $p < .001$ . Mean scores on each measure decreased from pathological levels at pre therapy to within normal ranges at posttherapy, and the effect sizes, calculated according to Cohen (12), were all robust (see Table I).

### HEALTH CARE UTILIZATION

Average length of stay (LOS) in hospital went from 9.8 days during the 12-month period two years before treatment to 3.4 days during the 12-month period after treatment. The general population's average LOS

Table I. SELF-REPORT OUTCOMES AT PRE- AND POST-ISTDP

Outcome Measure	N	Pre-therapy		Post-therapy		Effect Size	Normal Reference
		M	SD	M	SD		
BSI	62	1.37	0.63	0.50	0.39	1.62	<0.94
IIP	62	1.37	0.64	0.83	0.52	0.90	<1.0 <sup>a</sup>
BDI	73	17.2	9.10	6.4	7.00	1.19	<10
BAI	73	18.6	9.90	6.30	6.30	1.24	<10

<sup>a</sup>Normal cutoff for this scale was taken as one standard deviation below the clinical group mean.

during the same 12-month period was 7.2 days. As Table II indicates, both the number of hospitalizations and total hospital costs decreased from above to within expected normal ranges. In addition, total physician billings approximated age, sex, and region-matched norms for the 12-month period posttherapy despite being substantially higher at pretherapy.

#### MEDICATION CHANGES

Thirty-four (71%) of the 48 patients on medication entirely stopped a total of 40 daily use and one as-needed psychotropic medication. On average, medications were stopped 1.5 months after treatment began. A further 7 were able to reduce the dosage of their medication. Four required an increased medication dosage and one was started on 10 mg of paroxetine due to lack of adequate and efficient symptom reduction. Two remained on medication at their pretherapy dosage due to lack of response to the therapy trial.

Table II. COST-BASED MEASURES AT PRE- AND POST-ISTDP

Outcome Measure <sup>a</sup>	Pre-therapy	Post-therapy	Normal Reference
Aggregate Medication Cost/year	\$32 808	\$11 018	—
Aggregate Disability Costs/year <sup>b</sup>	595 140	113 360	—
Aggregate Hospital Cost	35 394	5 309	23 569 <sup>c</sup>
Aggregate Physician Service Fees/year	54 335	36 036	36 256 <sup>d</sup>
Total Cost of Medication, Medical Care and Disabilities	\$717 677	\$165 723	—

<sup>a</sup>Pre-therapy data based on 12 month period 2 years before therapy, post-therapy data based on 12-month period post-therapy.

<sup>b</sup>Statistics Canada Welfare Costs and Workers Compensation Board Cost Data, 1999.

<sup>c</sup>Acute Care Hospital Costs by Area of Residence 1998/1999.

<sup>d</sup>Age, Area of Residence, and Gender Specific Data 1993-94.

#### EMPLOYMENT STATUS

Eighteen (82%) of the 22 unemployed returned to work after an average of 60.0 weeks off work. These patients returned to work on average 9.8 weeks into therapy (Range 2-35 weeks). Seventeen (94%) of these 18 had been on private insurance disabilities. The 4.9% posttherapy unemployment rate compares favorably with the 1999 Vancouver City rate of 7.8%.

#### COST OFFSET

Comparing the 12-month period two years pretherapy versus the 12-month period posttherapy, a total of Cdn \$551,954 was saved due to returns to work, stopping medications, reduced physician costs, and reduced hospital days. Administration of the therapy cost \$149,431, resulting in a net cost reduction to the system of Cdn \$402,523.

#### OTHER

Seven patients stopped daily marijuana use after an average of 13.8 years, while six stopped cigarette smoking after an average of 11.0 pack-years. Five patients stopped long-standing eating disorder behaviors. Three self-employed patients reported marked increases in their business productivity. Two patients whose blood pressure normalized were able to stop antihypertensive medications.

#### DISCUSSION AND CONCLUSIONS

The objective of this study was to determine the clinical effectiveness of ISTDP in a private-practice setting. The rates of long-term disabilities, unemployment, medication use, suboptimal responses to prior treatment, and high health care utilization suggest chronic conditions and a resistant population. Data collected from several sources suggest that the patients' mental health and interpersonal functioning were significantly improved after ISTDP therapy, and that these improvements were associated with a substantial decrease in health care-utilization costs. Patient symptoms, as measured by four well-established self-report measures, decreased significantly from pathological levels at pretherapy to within normal ranges posttherapy.

Of particular interest to funding agencies and insurers is the cost-benefit analysis of administering ISTDP therapy to this sample. Data gathered from prescription administration, disability insurance costs, and hospital and physician service costs, suggest an overall cost reduction for these 89 patients to the system of approximately \$402,523 over the 12-month period after therapy. The magnitude of this cost offset is consistent with previous research (13).

The conclusions of this research, however, must be considered within the limitations of the study's preexperimental design. According to Campbell and Stanley (14), the most serious limitation of a one-group pretest-posttest design is the inability to assign cause and effect. Given the uncontrolled nature of this type of design, it is impossible to rule out other factors that may have influenced the positive outcome observed. While this limitation cannot be fully overcome, several aspects of the present study suggest that ISTDP therapy was the critical factor in bringing about the observed improvements. First, several lines of converging evidence, from a disparate range of sources including self-report measures, health care utilization, and employment data, all suggest a substantial improvement. Second, because patients began therapy as they were referred over a two-year period (i.e., 1995-1997), it is unlikely that a change in some global variable (e.g., seasonal change, reduction in taxes, etc.) played a role in the observed changes.

The present findings suggest that ISTDP within a private practice setting warrants further examination. This may take the form of a multiple-therapist naturalistic effectiveness study, a dose-response controlled trial, or a randomized, controlled study design. These, in conjunction with existing case series and detailed case reports, would represent a well-rounded body of data evaluating the efficacy of ISTDP.

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