



Long-term healthcare cost reduction with Intensive Short-term Dynamic Psychotherapy in a tertiary psychiatric service



Allan Abbass^{a,*}, Steve Kisely^b, Daniel Rasic^c, Joel M. Town^d, Robert Johansson^e

^a Dalhousie University, 8203-5909 Veterans Memorial Lane, Halifax, NS, B3H 2E2, Canada

^b School of Medicine, Queensland, Australia

^c Dalhousie University, Halifax, NS, Canada

^d Centre for Emotions and Health, Dalhousie University, Halifax, NS, Canada

^e Department of Behavioural Sciences and Learning, Linköping University, Linköping, Sweden

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ABSTRACT

Objective: To evaluate whether a mixed population of patients treated with Intensive Short-term Dynamic Psychotherapy (ISTDP) would exhibit reduced healthcare costs in long-term follow-up.

Methods: A quasi-experimental design was employed in which data on pre- and post-treatment healthcare cost were compared for all ISTDP cases treated in a tertiary care service over a nine year period. Observed cost changes were compared with those of a control group of patients referred but never treated. Physician and hospital costs were compared to treatment cost estimates and normal population cost figures.

Results: 1082 patients were included; 890 treated cases for a broad range of somatic and psychiatric disorders and 192 controls. The treatment averaged 7.3 sessions and measures of symptoms and interpersonal problems significantly improved. The average cost reduction per treated case was \$12,628 over 3 follow-up years: this compared favorably with the estimated treatment cost of \$708 per patient. Significant differences were seen between groups for follow-up hospital costs.

Conclusions: ISTDP in this setting appears to facilitate reductions in healthcare costs, supporting the notion that brief dynamic psychotherapy provided in a tertiary setting can be beneficial to health care systems overall.

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1. Introduction

Adverse childhood experiences (ACE) result in increased rates of the spectrum of psychiatric disorders as well as medically explained and unexplained symptoms (Felitti et al., 1998; Anda et al., 2006). These problems are understandable byproducts of strong unprocessed emotions coupled with deficits in emotion regulation (Felitti et al., 1998; Anda et al., 2006). Owing in part to these deficits, many patients with ACE have treatment-resistant, recurrent psychiatric and physical disorders that result in excess health system costs (Chartier et al., 2010; Nanni et al., 2012). This has led to calls for development of “intensive and alternative” treatments addressing treatment resistance in these individuals (Nanni et al., 2012).

Psychotherapy, as a collection of treatments, focuses on improving psychological strengths and overriding the effects of early adversity. Along with strong evidence of its effectiveness there is emerging data that those who receive psychotherapy are less likely to use medical services (American Psychological Association, 2013). Lazar (2010) recently reviewed the evidence for the cost-effectiveness of diverse psychotherapeutic models for depressive, anxiety, personality and psychotic disorders; they described a range of studies of mixed interventions with a relative few measuring long-term cost-effectiveness. They summarize only a limited number of studies mixed patient sample data (pp. 15–17). Chiles (1999) meta-analyzed 91 studies of medical cost offset of a range of psychological interventions and found a mean 20–30% reduction in hospital costs averaging \$1759 (Year 1993 US dollars). Further research continues to be called for to investigate the healthcare-related cost-effectiveness of psychotherapy.

* Corresponding author. Tel.: +1 902 473 2514.

E-mail address: allan.abbass@dal.ca (A. Abbass).

A few studies of diverse short-term psychodynamic psychotherapy (STPP) models have studied health service cost reduction in mixed samples. Guthrie et al. (1999) found that 8 sessions of brief psychodynamic-interpersonal therapy brought health service cost reduction with treatment cost recovered by 6 months after treating a high-utilizing mixed patient sample. Abbass (2003) reviewed available STPP cost effectiveness studies up to 2003 and reported a persistent 40% hospital and doctor cost reduction in a mixed outpatient sample after 14.9 treatment sessions, equaling the treatment cost. Kraft et al. (2006) studied the medical cost reduction of 33.6 treatment sessions (mostly psychodynamic therapy) applied to a diverse mixed patient group and found a statistically non-significant 26.3% reduction. Likewise, Sattel and colleagues (2012) did not note significant reductions in physician service use after a short course of STPP for mixed patients with multisomatoform disorders and later reported a 50% chance the treatment was cost effective at a certain cost per QALY (Chernyak et al., 2014).

Intensive Short-term Dynamic Psychotherapy (ISTDP, Davanloo, 2000) is a form of STPP designed to address ACE-related emotional contributors in diverse treatment-resistant (Abbass, 2006; Abbass et al., 2008a, 2013; Hajkowski and Buller, 2012; Solbakken and Abbass, 2013) and high service use (Abbass et al., 2009a) populations (Town and Driessen, 2013). A recent review of 13 studies including some cost related measures suggested ISTDP may reduce health service costs (Abbass and Katzman, 2013). However, this evidence is variably limited by small samples, lack of controls, limited follow-up and the fact that treatment was delivered by expert therapists thereby limiting generalizability.

2. Methods

2.1. Objective

The objective of this study was to further existing research by examining whether brief individual psychotherapy provided to tertiary populations by therapists with a range of skill levels results in sustained reductions in health service costs. Secondly we examined whether any observed changes differ from those of an untreated comparison group.

2.2. Setting

Nova Scotia is a province on the Atlantic seaboard of Canada with a population of just under one million. Halifax is the major metropolitan center. Under the Canada Health Act, all Canadian residents are entitled to inpatient or outpatient care that is free at the point of delivery. Individuals receive treatment at publicly funded facilities, or are seen by private specialists or general practitioners who bill the provincial health plan. There are no private hospital beds to date.

The Centre for Emotions and Health is a tertiary psychotherapy service at Dalhousie University located in the Queen Elizabeth II Health Science Centre in Halifax. This service receives referrals from the emergency department, family practice offices, medical-surgical specialties and secondary and tertiary mental health services. It is a teaching and research service using the ISTDP model to detect and treat emotional contributors to medically unexplained symptoms, anxiety disorders, mood disorders, personality disorders and psychotic disorders.

2.3. Design

We used a quasi-experimental design in which within group pre-versus- post, year-by-year cost data could be compared. Physician and hospital costs were then compared to treatment

costs estimates and normal population cost figures. Secondly, we compared healthcare cost differences and year-by-year data between cases and a control group of all patients who were referred to the service, but never seen.

2.4. Participants & procedures

We included treated cases and controls from between March 30, 1999 and March 30, 2007 to allow determination of pre- and post-treatment intervals and follow-up intervals. All patients had to be from the province of Nova Scotia with valid Nova Scotia health card numbers so they would have service use recorded in the provincial health care registry. We included all patients who had trials of ISTDP, including therapy by professionals with various levels of expertise.

As a parallel comparison group, we included all patients referred to, but never seen on the service. To avoid selection bias, all such patients were included regardless of reason for non-attendance or any other referral characteristic. At baseline, both referred patient groups were deemed appropriate for a psychotherapeutic assessment and consented to a referral to the Centre for Emotions and Health. The rationale for choosing this control was that these patients would have had a similar pre-referral experience as treated cases in which a health professional spoke with them about possible psychological contributors to their problems and gained their consent to attend a specialized psychotherapy assessment. To adjust for average time passage from referral to the end of ISTDP treatment, the period of time from referral to 6 months after referral was considered the “intervention time” for controls.

The study was approved by the local hospital ethics review board and registered in Clinical trials.gov as identifier number NCT01924715.

For each treated patient, health card numbers, dates of treatment, demographics, clinically derived diagnoses and self-report outcome measure results were entered into a spreadsheet by a research assistant. Number of hours and type of training the therapist had along with ratings of treatment fidelity were also entered (see below). Likewise, health card numbers of controls and their dates of referral were entered into a spreadsheet by a research assistant. All identifiers were removed and provincial health card numbers were encrypted and sent to the Population Health Research Unit (PHRU), a unit with access to provincial in-patient and physician billing databases, for data extraction and analysis. These cover both hospital separations, as well as billing data from private specialists and general practitioners.

Health Canada and the Public Health Agency of Canada have both used administrative data-sets for chronic disease surveillance (Kisely et al., 2009). Although these data were collected for billing, rather than surveillance, studies using these data-sets for disease surveillance have shown acceptable accuracy over time and against other measures (Kisely et al., 2009; Williams and Young, 1996).

2.5. Measures

For all participants, mean hospital costs and physician costs were extracted from the PHRU databases for 1 year prior to referral and 1, 2 and 3 years afterwards. This database also yielded age, gender, income, place of residence (urban versus rural) and primary diagnoses made by physicians in the year before referral. To eliminate the effects of cost variation over time, PHRU provided 2007-equivalent cost values for all physician services and hospital stays based on diagnosis and procedure codes. These were compared with mean physician billings for the Nova Scotian population (Nova Scotia Department of Health (2008)) and Canadian population

average inpatient costs for 2007 (Canadian Institute for Health Information, 2012).

To evaluate treatment effectiveness, ISTDP-treated patients completed pre- and post-treatment self-report outcome ratings on 2 scales. The Brief Symptom (BSI, Derogatis and Melisaratos, 1983) is a well-validated 53 item self-report measure providing outcomes on 8 symptom subscales. The Inventory of Interpersonal Problems (IIP, Horowitz et al., 1988) is a well-validated 32 item self-report scale with 8 subscales describing personality difficulties. These measures were phased in at various points over this 9-year interval.

DSM IV diagnoses were derived from clinical interviews and tabulated on an intake form. Didactic hours, supervision hours and total training hours were tabulated during supervision and recorded on a form.

2.6. The intervention

All treated cases received an individual integrated form of psychotherapy emphasizing emotional mobilization and handling of defenses against emotional experiencing called Intensive Short-Term Dynamic Psychotherapy (ISTDP) (Davanloo, 2000). The method begins with a single interview therapeutic trial with a specialized evaluative procedure to help determine the relative contribution of emotional factors to somatic and psychiatric presentations (Abbass et al., 2008b). The interview also includes therapeutic elements where emotions related to ACE and other trauma are examined and processed where possible. This interview may bring symptomatic relief in diverse populations, with greater effects compared to standard psychiatric intake interviews (Abbass et al., 2008c, 2009b).

ISTDP has tailored formats to overcome high levels of defensiveness in the forms of emotional avoidance and damaging behavioral patterns typically stemming from ACE. The standard format focuses on overcoming such defenses especially with highly defended patients. For patients with self-regulation deficits, therapy focuses first on building capacity to tolerate anxiety and emotions. This latter format applies to patients with active major depression, dissociation and certain somatic conditions such as conversion and irritable bowel syndrome (Davanloo, 2005).

Patients referred to the Centre were placed on a wait-list for a trial of therapy. Therapists were licensed health professionals and students training in ISTDP. After the trial interview, consenting patients requiring further sessions were placed on a second wait-list. Treatment was not time-limited; rather termination was determined by response to treatment and agreed upon by patient and therapist.

Treatment fidelity was augmented through weekly video recording based courses, weekly small video-based group supervision by an experienced supervisor (Abbass, 2004) and provision of technical literature on the model (Davanloo, 2000). Partway through this study interval, routine fidelity ratings were recorded using a 4-point adherence scale developed for research (Abbass et al., 2008a) in which a cut-off score of 3 out of 4 was considered adherent.

2.7. Data analysis

First, we checked if there were baseline socio-demographic or clinical differences between cases and controls to determine the need to adjust for confounders and found none. Then we performed pair-wise within group (pre versus post) Wilcoxon signed-rank tests for physician billings and hospital costs comparing 1-year pre-treatment with 1, 2 and 3 years post treatment. Secondly, we performed Wilcoxon rank-sum tests to compare costs between cases and controls at all time points. We used non-parametric tests

given the skewed nature of the cost data. We calculated means to be able to provide total groups costs and to compare to normal population means for both physician and hospital billings.

Treatment cost estimates were calculated using \$125 per hour for psychiatrist and family physicians, approximately the standard funding rate of hospital-based psychiatrists during those years. We used the rate \$50 per hour for psychiatry residents, other students and health professionals (Magen and Richards, 2011): since some of the students did not receive salaries, this is a conservative cost estimate for this group.

In terms of symptom (BSI) and interpersonal problem (IIP) severity, changes over time in the ISTDP group were investigated using mixed-effects models for repeated-measures data, fitted with maximum likelihood estimation. Mixed models analyses take all available data into account and provide unbiased estimates in the presence of missing data under a fairly unrestrictive missing data assumption (i.e., missing at random), and adequately handles nested data structures inherent in repeated-measures data (Verbeke and Mohlenbergs, 2000). All models included random intercepts and slopes, and the covariance between the intercept and the slope, if significant. Within-group effect sizes (Cohen's *d*) were calculated by dividing the differences in means by the pooled standard deviations (Borenstein, 2009). Effect sizes can be interpreted as follows: an effect size in the range of 0.20–0.49 is small, while 0.50–0.79 is moderate, and an effect size of 0.80 or greater is large (Cohen, 1988).

3. Results

3.1. Sample

A total of 1143 Nova Scotian patients with valid health card numbers were referred to the service from emergency departments, physicians, mental health professionals and specialty psychiatric services during the study interval. One hundred and ninety-two of these referrals were not seen for an initial consultation; this included 127 (66.1%) who declined the offer declaring a lack of need and/or interest, 42 (21.9%) who could not be contacted and 23 (12.0%) who did not attend the scheduled assessment. These patients served as controls. Of the remaining 951 patients who attended for initial assessment, 11 declined therapy while 50 had contra-indications such as dementia, mental retardation or learning disability ($n = 20$), active substance dependence ($n = 16$), unstable psychosis/mania ($n = 12$), severe personality disorder ($n = 2$). This left 890 cases (Fig. 1).

Thus, 1082 patients were included in this study ($n = 890$ cases and 192 controls). They averaged 41.6 (12.4) years of age, 57.0% were female, 79.1% lived in an urban area and income was evenly distributed across 4 quartiles. The Nova Scotia Government uses ICD-9 codes for physician billings and provided these to allow intergroup diagnostic comparison: pre-referral primary diagnoses from physician visits were Neurotic/Somatoform Disorder (70.8%) and Depressive Disorder (15.3%). None of these characteristics differed significantly between cases and controls (Table 1).

Both groups had high baseline health care costs. Doctor costs averaged \$828.8 (SE 37.8) for cases and \$840 (SE 58.6) for controls while hospital costs averaged 5527.3 (SE 925.4) for cases and 8095.1 (SE 2490.5) for controls, both statistically non-significant differences.

The treated cases were a comorbid patient group with multiple diagnoses. The most common clinically derived DSM IV diagnoses were somatoform disorder ($n = 543$, 60.9%), anxiety disorder ($n = 492$, 55.3%), personality disorder ($n = 452$, 50.1%) and major depression ($n = 302$, 33.9%). Dissociative disorder was seen in 213 (23.9%) while psychosis or bipolar disorder was diagnosed in 68

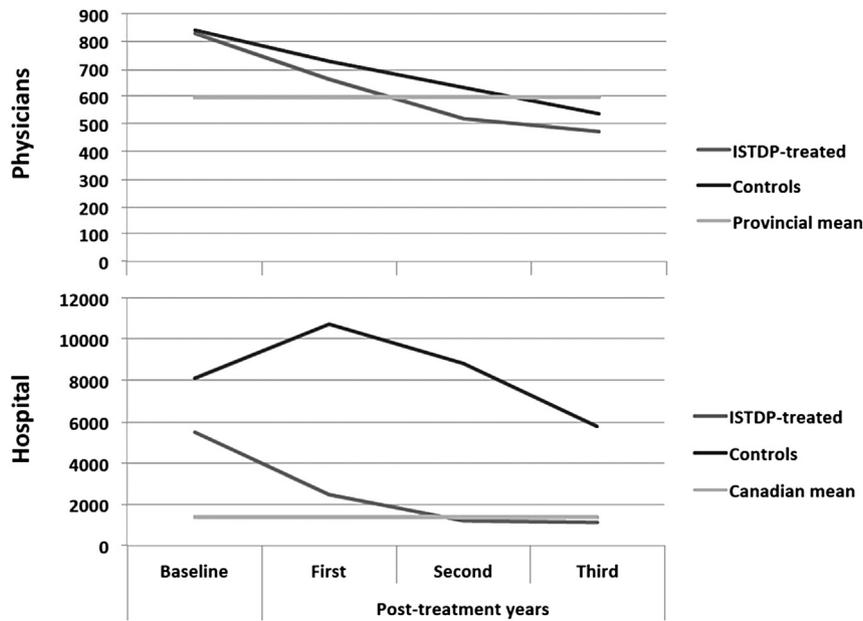


Fig. 1. Health care costs in 2007—Equivalent Canadian dollars.

(7.6%). Of the 543 somatic symptom presentations 208 (38.3%) had chronic/recurrent headache, 198 (36.5%) had irritable bowel syndrome and 123 (22.7%) had fibromyalgia.

3.2. Treatment

Fifty-eight therapists provided ISTDP treatment through an average of 7.3 (SD 12.4) sessions. The direct treatment cost estimate based on 2006 salaries was \$708. Approximately one half of patients had a trial therapy plus or minus a follow-up interview (53.4%) while 27.3% had 3–10 sessions and 19.3% had over 10 sessions. Six hundred cases were treated by 10 graduated psychiatrists (n = 6) or psychologists (n = 4) with a mean of 1301 (SD 660) hours of didactic training and 340 (SD 113) hours of group videotape supervision. Three hundred and ninety cases were treated by 48 trainees with a mean of 169.2 (SD 118) hours of didactic training and 101.1 (SD 148) hours of group videotape supervision. This latter group was comprised of psychiatry residents (n = 31), family

doctors or family medicine residents (n = 7), and a mix of other professionals and students n = 10). Adherence to treatment (n = 163) was reasonable with a mean rating of 3.4 (SD 0.7) out of 4.

3.3. Healthcare costs

ISTDP treated cases had significantly reduced physician and hospital costs at 1, 2 and 3-year follow-up ($p < 0.01$). By contrast, controls had significantly increased costs in year 2 hospital costs ($p = 0.035$) and no significant changes in other years. Controls experienced significant reductions in physician costs at 1, 2 and 3-year follow-up (all $p < 0.01$, see Table 2).

ISTDP group combined hospital and doctor costs were reduced by \$3224, \$3645 and \$4759 per patient over 1, 2 and 3-year follow-up respectively for a total average of \$12628. In comparison, controls had increases of \$2488 in year 1, \$514 in year 2 and a decrease of \$2633 in year-3 follow-up for a total average cost increase of \$368.

Table 1
Baseline characteristics of the cases and controls (1 year pre).

		Cases	Controls	p Value
Patient age	Mean	41.6 (12.1)	41.0 (13.5)	0.63
Gender	Male	43.6%	40.1%	0.376
	Female	56.4%	59.9%	
Residence	Urban	78.8%	80.2%	0.656
	Rural	21.2%	19.8%	
Income	First quartile	23.9%	20.8%	0.283
	Second quartile	23.9%	21.9%	
	Third quartile	23.9%	22.9%	
	Fourth quartile	23.9%	30.2%	
	Unknown	5.6%	4.2%	
Pre-referral diagnosis	Somatoform disorder	3.0%	3.1%	0.524
	Depressive disorder	16.0%	12.0%	
	Neurotic or somatoform disorder	66.9%	71.9%	
	Non-specific diagnosis	6.4%	4.7%	
	Other mental disorder ^a	3.3%	(4.6%)	
Health costs	Unknown	4.5%	6.8%	
	Physician	\$828.8 (SE 37.8)	\$840 (SE 58.6)	0.87
	Hospital	\$527.3 (SE 925.4)	\$095.1 (SE 2490.5)	0.26

^a Includes other, personality disorders, psychosis.

Table 2
Within and between group cost differences.

Year	Group (n)	Physician costs mean (SE)/median (year 2007 \$ Canadian)	Within group ^a		Between group ^b	
			S	P	W	P
1	Cases (890)	664.0 (66.3)/398.3	−53671.5	0.001	100287.5	0.09
	Controls (192)	730.4 (38.3)/460.2	−2203.5	0.001		
2	Cases (750)	518.4 (22.6)/334.1	−48995.5	0.0001	79678.00	0.09
	Controls (178)	632.2 (58.6)/387.1	−2553.0	0.0001		
3	Cases (559)	472.3 (26.2)/312.2	−34555.5	0.0001	45247.50	0.14
	Controls (127)	535.2 (54.7)/350.0	−1735.5	0.0001		
Hospital Costs						
1	Cases (890)	2466.9 (483.3)/0	−6910.5	0.0001	108134.0	0.04
	Controls (192)	10693.2 (4751.6)/0	287.0	0.15		
2	Cases (750)	1191.7 (175.7)/0	−5516.0	0.0001	89024.0	0.01
	Controls (178)	8816.5 (3727.6)/0	405.5.0	0.035		
3	Cases (559)	1123.6 (230.9)/0	−3619.0	0.0001	45559.5	0.06
	Controls (127)	5765.9 (2746.8)/0	−172.0	0.10		

^a Wilcoxon signed rank tests comparing within group annual cost with baseline values. Negative values connote cost reductions while positive values connote cost increases.

^b Wilcoxon rank sum test (one tailed) for year-by-year between group costs.

To further test the hypothesis of greater cost savings in the ISTDP group, we used Wilcoxon rank-sum test to compare cost figures in each follow-up year between cases and controls. There were non-significant trends toward differences in physician costs in year 1 and year 2 ($p = 0.09$) but not in year 3 ($p = 0.14$). There were significant between-group differences in hospital costs in the first ($p = 0.04$) and second year ($p = 0.01$) but the difference did not reach significance in the third year ($p = 0.06$, Table 2).

3.4. Comparison to population cost norms

All cost data were standardized to 2007 data suggesting we could examine costs in relationship to 2007 population norms despite data coming from many different years. Physician costs went from above, to below, the 2007 population mean of \$595 per Nova Scotian in the 2nd and 3rd year after treatment (Nova Scotia Department of Health (2008)) Likewise, average hospital costs per patient went from above, to below 2007 per capita Canadian averages of \$1389 in 2 and 3 years following treatment (Canadian Institute for Health Information, 2012). Thus, physician and hospital costs for cases went from greater than to less than those of the general population. Control hospital costs never approached normal population values and they only reached normal population physician cost levels in year 3. See Fig. 2.

3.5. Self-report measures

Mixed-effects model analyses showed a significant pre-to post-treatment improvement on both the total BSI, $F(1, 178.2) = 161.1$, $p < 0.001$ with an effect size of $d = 0.84$ (95% CI: 0.67–1.01) and the total IIP, $F(1, 149.3) = 108.1$, $p < 0.001$ with an effect size of $d = 0.85$ (95% CI: 0.64–1.05). The mean BSI trajectory was estimated to start at 1.62 at baseline (i.e. the intercept; 95% CI: 1.55–1.69) and to slope downward at a rate of 0.68 BSI units (95% CI: 0.57–0.79) over the course of treatment. For the IIP, the intercept and the slope were estimated to 1.52 (95% CI: 1.46–1.58) and 0.57 (95% CI: 0.46–0.67), respectively.

4. Discussion

Within specific limitations, this study supports the concept that brief psychotherapy targeting health and illness behaviors related to emotional dysregulation provided in a tertiary setting may facilitate healthcare cost reduction, in addition to significant

symptom and interpersonal benefits (BSI and IIP). Observed reductions in both physician and hospital costs were substantial, statistically significant, and persisted over long-term follow-up. Hospital costs were also significantly lower than those of non-randomized controls in 1 and 2 years follow-up. Finally, costs traversed the normal population averages into the normal ranges. These findings add to growing evidence supporting psychotherapy as a cost-effective intervention for a range of psychiatric and somatic disorders (Lazar, 2010).

This study also suggests that diverse tertiary patients may benefit from treatment by therapists with varying degrees of experience. Factors common to effective psychological therapies inherent in this service include therapist access to ongoing case-based education, video recording review of the treatment process and regular clinical supervision. Within this treatment framework the generalizability of this approach across patients and therapists appears to be good.

The brevity of these apparently beneficial treatment courses warrants consideration. Although not all patients are symptom free

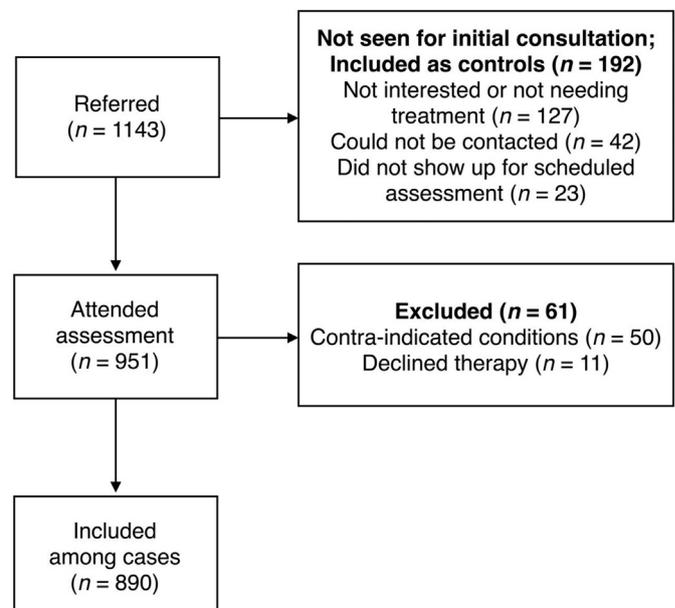


Fig. 2. Selection of cases and controls.

with this short course, our results suggest that tailored brief therapy courses may be sufficient. This finding matches those of Howard and others who found naturalistic, short psychotherapy treatments brought improvements for a significant portion of patients (Howard et al., 1986). While some patients require extended treatment courses, the current findings support the recommendation that short-term approaches should be tried first, even in tertiary treatment centers and with complex patient populations (Guthrie et al., 1999; Malhi et al., 2009; Lazar, 2010; pp. 155–157).

Our findings of a 71.1% reduction in hospital costs and 31.3% reduction in physician costs compare with 20–30% reductions in hospital costs Chiles et al. (1999) reported and 26.3% overall cost reduction Kraft et al. (2006) reported. As the treatment in this current study was short at 7.3 sessions, its average cost was small in comparison to observed health care cost reductions. Due to multiple differences in sample and methods of measurement, direct comparisons with these studies are not possible. For example our sample had a high rate of patients with medically unexplained symptoms, known to be high service users (Lazar, 2010, p 234; Konnopka et al., 2012): thus, baseline cost starting points may be higher and cost reductions more easily obtained in our sample versus other studies (Chiles et al., 1999). Other factors including patient age and treatment location (inpatient versus outpatient settings) also impact on treatment cost effectiveness (Chiles et al., 1999).

These results should be interpreted in the context of specific limitations. First, as the healthcare utilization database only captured physician costs, we cannot comment on non-physician treatment utilization, either before or after referral to the service: it is therefore possible that many patients in both groups had psychological treatment that we could not capture (Knekt et al., 2011). Second, and related to this, we did not have a randomized control condition limiting our ability to isolate causes of health service cost reduction. Third, it is possible that controls not needing treatment, not wanting treatment or those who could not be contacted biased toward a more non-compliant sample who may have more chronic courses: it is also possible that some of these cases were not candidates for ISTDP. The only reassurance we have about these possible differences is the absence of baseline health cost, diagnostic or socio-demographic differences. Fourth, the absence of individual level data precludes description of cases experiencing cost reduction versus no reduction versus cost increases: inevitably this grouped data contains some of each of these patient types (Newman, 2000). Finally, as this study reported a mixed sample, the cost-effectiveness of individual diagnostic groups is not herein reported.

Strengths of the study include a naturalistic design with data that include all treatment efforts over an extended time period, a broad range of therapist experience, a large number of fairly well-trained, adherent therapists, and a broad range of patient categories reflecting the scope of this treatment model in a real world setting (Abbass et al., 2012). Thus, this type of study can complement RCT studies that may lack external validity as many of these patients and therapist groups are excluded. Another strength was inclusion of a tertiary sample who are less likely to be treatment responders and more likely to have persistent excess health service use (Newman, 2000).

5. Conclusion

Within specific limitations noted, ISTDP treatment appears to facilitate healthcare service cost reduction when used with a broad range of patients. As a short and inexpensive intervention it warrants further evaluation as a clinical tool for high service-utilizing, tertiary clinical populations. Future research in this approach

should include studies with a randomized design and study of the method in other tertiary centers to evaluate its generalizability.

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This research was supported by grants from the Dalhousie University Psychiatry Research Fund, The Capital District Mental Health Service and The Mental Health Foundation of Nova Scotia. None of these organizations contributed to the completion and preparation of this manuscript.

Conflict of interest

Drs Abbass and Town practice and teach Intensive Short-term Dynamic Psychotherapy.

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