



An observational study of the treatment and cost effectiveness of intensive short-term dynamic psychotherapy on a cohort of eating disorder patients

Dion Nowoweiski^{1*}; Allan Abbass²; Joel Town²; Aaron Keshen³; Steve Kisely⁴

¹The ISTDP Clinic, Level 1, Rear 24 High Street, Glen Iris, Victoria, 3147, Australia

²Centre for Emotions and Health, Faculty of Medicine, Dalhousie University, 5909 Veterans Memorial Lane, Halifax, Nova Scotia, Canada, B3H 2E2

³Eating Disorders Program, Nova Scotia Health Authority, Dalhousie University, Department of Psychiatry, 5909 Veterans Memorial Lane, Halifax, Nova Scotia, Canada, B3H 2E2

⁴School of Medicine, The University of Queensland, Level 4, Princess Alexandra Hospital, Ipswich Road, Woolloongabba, Queensland, 4102, Australia

*Corresponding Author(s): Dion Nowoweiski

The ISTDP Clinic, Level 1, Rear 24 High Street, Glen Iris, Victoria, 3147, Australia
Email: dion@theistdpclinic.com.au

Abstract

Purpose: Treatments for Eating Disorders (ED) have been shown to be limited in their efficacy. Therefore, this study was designed to gather preliminary data to identify whether there was some clinical utility in offering Intensive Short-Term Dynamic Psychotherapy (ISTDP) to people suffering from ED and whether ISTDP was cost-effective for the cases treated in this study.

Methods: We studied pre- versus post-treatment physician and hospital costs as well as the general mental health outcomes in a cohort of people with DSM-V diagnosed ED that had been treated with ISTDP.

Results: A total of 27 cases were included who met criteria for a variety of ED diagnoses and various co-morbid mental illnesses. These cases showed significant pre- to post-treatment improvement on the Brief Symptom Inventory and the Inventory of Interpersonal Problems with large effects. The average physician and hospital costs, per case, was above the general population norm data the year before treatment and was reduced by \$15,024 per case over three years of follow-up.

Conclusions: These preliminary data suggest that ISTDP treatment can help reduce hospital and physician costs as well as reduce psychological distress in people diagnosed with an ED.

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Introduction

A recent review [1] regarding the impact of specialized treatments for Anorexia Nervosa (AN) found that those treatments confer no greater benefit over non-specialized forms of treatment for AN. Those authors recommended that greater focus on treating the psychological symptoms of Eating Disorders (ED) was needed as a clinically relevant proportion of patients with an ED are complex, treatment resistant cases that are also high users of medical services [2,3]. These patients often continue to struggle with unresolved or partially remitted psychiatric symptoms even after a full course of treatment, leaving them vulnerable to relapse [4] and persistent excess health system use. Hence, the health costs associated with this population are substantial. In Australia, for example, the burden of disease from EDs was estimated at \$52.5 billion in 2012, which included over \$100 million in health system costs. This was greater than the estimated burden of disease for anxiety and depression combined (\$41.2 billion) over the same period and was similar to the burden of disease for obesity (\$52.9 billion) [5]. Despite this significant economic burden, there is limited empirical data highlighting treatment approaches that are both cost effective as well as helpful for reducing the psychopathology associated with EDs and that assist in improving functioning and quality of life in the ED population.

Of relevance, a recent meta-analysis comparing the differences in outcomes between bona fide psychotherapy approaches in treating EDs found that there were no differences between Cognitive-Behavioral Therapy (CBT) approaches and non-CBT approaches and the researchers concluded that the results indicated that any of the bona fide psychotherapies examined would be equally effective [5]. Further, a study published by Egger et al. [6] provided data showing that Focal Psychodynamic Treatment (FPT), a specific form of Psychodynamic treatment, was more cost-effective in the treatment of outpatients with AN when compared with Enhanced-Cognitive Behavioral Therapy (CBT-E) and an optimized form of treatment as usual. Additionally, Stefani et al. [7] compared CBT and Psychodynamic Therapy (PDT) in female adolescents with Bulimia Nervosa (BN) and found that both were effective in promoting recovery with similar recovery rates for both treatment groups and similar to other studies evaluating CBT.

Among Psychodynamic Therapies (PDT), there is a shared overarching theoretical framework for targeting unconscious emotional and behavioral processes that may induce or perpetuate EDs and likely promote refractoriness [7]. A recent review [8] identified 47 studies of PDT for ED yielding mixed but promising results. However, these authors of the review paper intentionally adopted a broad definition of PDT. Using a narrower definition of PDT that emphasizes a focus on identifying

and managing unconscious emotional processes there may be as few as 11 studies of PDT for ED, which are summarized in Table 1. Within this subset of psychodynamic treatments, the variation in the range of technical interventions and underlying theoretical principles that inform these approaches has more in common than those in the broader treatments cited. Within this list, there is reference to some short-term dynamic psychotherapies being useful. One example of a short-term psychodynamic therapy (not included in Table 1), that to the best of our knowledge has not been tested for ED, is Intensive Short-Term Dynamic Psychotherapy (ISTDP) [7,8]. ISTDP aims to target affect and attachment based problems by engaging patients in an emotionally engaged, focused therapeutic relationship. Through focusing on unconscious emotions and addressing emergent defense mechanisms, this facilitates an unlocking of the unconscious [6], and in doing so, assists the patient to begin to recognize and resolve emotional content from previous attachment disruptions/traumas [9]. This is thought to help reduce ED symptoms, which have previously functioned as a system of defenses against unconscious conflicted feelings and experiences. Although there are behavioral elements embedded in the process, a key putative change process in ISTDP is the focus on activating and processing unconscious complex emotions whilst handling anxiety and barriers to feeling (see [8] for a detailed description of the clinical processes of ISTDP).

Conclusions

These preliminary data suggest that ISTDP treatment can help reduce hospital and physician costs as well as reduce psychological distress in people diagnosed with an ED.

ISTDP has been found to be cost effective and clinically effective in treating treatment refractory and complex patients with a range of patients suffering from differing psychiatric disorders [10]. A meta-analysis of 13 studies of ISTDP for personality and somatic disorders, revealed large pre- to post- treatment effect sizes that were maintained at follow-up [11]. The authors acknowledged limitations in the data, but suggested further examination of ISTDP was warranted based on these emerging findings. Regarding cost-effectiveness, Abbass and Katzman [12] found 13 studies of ISTDP illustrating preliminary evidence of cost savings related to a decrease in medical system costs, reduced medication usage and disability claims.

This current study examines the treatment effects and cost effectiveness of ISTDP on general mental health outcomes in people diagnosed with ED (i.e., Anorexia Nervosa, Bulimia Nervosa and Eating Disorder Not Otherwise Specified (EDNOS)) using DSM-IV [13] criteria. Based on previous research, we hypothesized that the approach would be both clinically effective and cost effective with this complex patient population.

Table 1: Studies of Psychodynamic (PD)/Psychoanalytic (PA) Therapies for Eating Disorders

Source	Diagnosis	No. of Subjects		Concept of Psychodynamic/Psychoanalytic Therapy	Mean time in therapy for PD/PA Group	Main Outcome
		PD/PA	Comparison			
Poulsen et al. 2014 [37]	BN	34	CBT (n=36)	Long Term Psychoanalytic therapy aimed to increase the capacity to reflect on and tolerate affective experience and to facilitate insight into the mechanism hiding unconscious and disavowed aspects to the patient.	72.3 sessions	At 2 years, 44% in the CBT group and 15% in the psychoanalysis group stopped binge eating and purging.

Zipfel et al. 2014 [38]	AN	80	CBT-E (n=80); TAU (n=82)	Focal Psychodynamic Therapy attempted to build therapeutic alliance, examine ego-syntonic anorectic beliefs, self-esteem, interpersonal underpinnings of the eating behavior and termination	39.9 sessions	There were no differences in weight gain among the 3 study groups. There was a higher rate of recovery at 12-month follow-up in the Focal Psychodynamic Therapy group compared to TAU.
Lock et al. 2010 [39]	AN	60	FBT (n=61)	Adolescent Focused Therapy (AFT) attempted to enhance autonomy, self-efficacy, individuation and assertiveness while also encouraging support from parents.	12 months	No differences in full remission between AFT and FBT at end of treatment. FBT was superior in terms of full remission at 6- and 12- month follow-up.
Dare et al. 2001 [40]	AN	12	FBT (n=16); CAT (n=13); TAU (n=13)	Focal Psychoanalytic Therapy addressed conscious and unconscious meaning of the eating symptoms, effects of the symptoms on current relationships and manifestation of those influences in the relationship with the therapist.	13.6 sessions	Focal Psychoanalytic Therapy, FBT and CAT were more effective at leading to weight gain than TAU, but there were no differences between the 3 "specialized treatments".
Bachar et al. 1999 [41]	AN/BN	17	COT (n=17); NC (n=10)	The Self Psychological Approach (SPT) aimed to help patients rely on people (starting with the therapist) as self-objects instead of using food as self-objects for the regulation of self-esteem, calming and self-soothing.	Weekly for 1 year	There were greater improvements in eating disorder symptoms seen in the SPT group compared to the COT and NC groups.
Robin et al. 1999 [42]	AN	18	FBT (n=19)	Ego-Oriented Individual Therapy (EOIT) focused on ego strength, coping skills, individuation from the nuclear family, confusion about identity, interpersonal issues and the relationship of all these issues with eating/weight factors.	22 mo	FBT produced greater weight gain and higher rates of resumption of menstruation than EOIT.
Gowers et al. 1994 [43]	AN	20	TAU (n=20)	Psychodynamic Therapy focused on underlying emotions and defense mechanisms related to weight/food by exploring the transference/countertransference relationship.	12 sessions	Weight changes were significantly better for the Psychodynamic Therapy group compared to TAU group, which involved a "one-off" assessment interview.
Garner et al. 1993 [44]	BN	25	CBT (n=25)	Supportive-Expressive Therapy (SET) aimed to take a non-directive approach with an emphasis on listening to the patient and helping identify problems and solutions. The therapist assumes a facilitative role and allows the patient to retain responsibility for change.	19 sessions	SET and CBT were equally effective at reducing binge eating episodes, but CBT was marginally superior at reducing vomiting frequency.
Hall and Crisp 1987 [45]	AN	15	NC (n=15)	Psychodynamic Therapy focused on encouraging the patients' maturity and promoting insight.	12 sessions	At one year follow-up both groups improved on global clinical scores.
Fairburn et al. 1986 [46]	BN	11	CBT (n=11)	Focused Short-Term Psychotherapy utilized an interpersonal model to explore and modify the interpersonal underpinnings of the eating disorder symptoms.	19 sessions	The Focused Short-Term Psychotherapy group made substantial improvements in bulimia symptoms, but CBT had an advantage in terms of its effect on the patients' overall clinical state, their general psychopathology, social adjustment and their assessment of their own outcome
Egger et al., 2016 [4]	AN	80	CBT-E (n=80); TAU-O (n=82)	Focal Psychodynamic Therapy attempted to build therapeutic alliance, examine ego-syntonic anorectic beliefs, self-esteem, interpersonal underpinnings of the eating behavior and termination	40 sessions	Costs of in-patient treatment and the percentage of patients who required in-patient treatment were considerably lower in both intervention groups. However, FPT proved more cost-effective in the treatment of adult A than CBT-E or TAU-O.

AN: Anorexia Nervosa; BN: Bulimia Nervosa; CBT: Cognitive Behavioral Therapy; CBT-E: Enhanced Cognitive Behavioral Therapy; TAU: Treatment As Usual; TAU-O: Optimized Treatment as Usual; FBT: Family Based Therapy; COT: Cognitive Orientation Therapy; NC: Nutritional Counseling.

Methods

Objective

The objective of this study was to examine whether there was preliminary evidence to support the clinical use of ISTDP for the ED population. Second, we examined the cost effectiveness of ISTDP in treating a mixed population of people diagnosed with differing ED diagnoses and various comorbid conditions.

Setting

All cases received treatment at the Centre for Emotions and Health located in Halifax, Nova Scotia, Canada. This service is a tertiary psychotherapeutic service linked to Dalhousie University and located in the Queen Elizabeth II Health Science Centre in Halifax. Furthermore, the service is a teaching and research center specializing in assessing and treating emotional contributors to physical and mental disorders using ISTDP. This service receives referrals from the emergency department, medical-surgical specialties and secondary and tertiary mental health services.

Participants & procedures

All cases who met the criteria for an ED and who received treatment from the Abbass and colleagues [14] data set were included in this study. 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. This study was approved by the local hospital ethics review board and registered in ClinicalTrials.gov as identifier number NCT01924715.

Measures/Data sources

For all cases, mean hospital costs and physician costs were extracted from the Population Health Research Unit (PHRU) database for the one year prior to referral and up to three years afterwards. The PHRU provided access to the provincial inpatient and physician billing database. The database covers both hospital separations, as well as billing data from private specialists and general practitioners. The 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, the 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 [14] and Canadian population average inpatient costs for 2007 [16].

To evaluate treatment effectiveness, cases completed pre- and post-treatment self-report outcome ratings on two scales. The Brief Symptom (BSI) [17] is a 53 item self-report symptom inventory that has been used in a variety of clinical and counseling settings as a mental health screening tool and as a method of measuring symptom reduction during and after treatment. The BSI also includes the Global Severity Index (GSI), which measures the intensity of symptoms. The test authors advise that the GSI is the scale that is the most sensitive single indicator of psychological distress. The Inventory of Interpersonal Problems-32 (IIP-32) [18] is a well-validated 32-item self-report scale with eight subscales describing personality difficulties. The IIP-32 subscales have demonstrated adequate internal con-

sistency in outpatient and non-clinical samples [19]. The IIP-32 has also been associated with some aspects of ED pathology [20]. These measures were phased in at various points over a nine-year interval and DSM-IV [12] diagnoses were derived from clinical interviews and tabulated on an intake form.

Intervention

The treatment used in this study, ISTDP [7,21,22,11], is a brief psychotherapy based on traditional psychodynamic principles, however, with a strong focus on emotional mobilization and handling of in-session defenses (i.e., resistant behaviors brought in treatment sessions) against experiencing of emotions. The first session in ISTDP, the "trial therapy", is typically longer than the follow up treatment sessions and involves a thorough assessment of the patient and their symptoms and the potential associations between the patient and their symptoms in relation to emotional experiences; this process, called psych diagnostic assessment helps to identify how and to what degree the patient defends against emotions in session and the patient's capacity to tolerate anxiety [23] and is designed to help the therapist identify optimal treatment pathways using the ISTDP model. The trial therapy also involves encouragement to help the patient experience repressed feelings related to adverse childhood experiences where possible. For a substantial number of patients, the trial, on its own, has been found to bring some symptom relief and eliminates the need for further therapy [23]. The therapy is considered short-term as cases are generally treated in under 40 treatment sessions.

ISTDP and treatment resistance

Davanloo [24] has defined two spectra that characterize patient functioning according to degree and type of resistance. Psychoneurotic patients are patients with an intact psychic structure with formal defenses they use in session. These patients do not experience cognitive perceptual disruption and do not rely on primitive defenses such as projective identification. Fragile patients, on the other hand, have unconscious anxiety manifest as cognitive perceptual disruption (e.g., dissociation) and have access to primitive defenses at either a low, moderate or high level of emotional activation [24]. Such a pattern implies that these patients have a less intact defensive structure. Hence, this is another type of treatment resistance. ISTDP for psychoneurotic and fragile patients tends to be different. Psychoneurotic patients can better tolerate emotional experiences, and as such, defenses towards such experiences are explicitly challenged. Fragile patients require processes to build capacity to tolerate anxiety and emotions [7,25,26]. This latter format also applies to patients with severe depression and somatic conditions such as conversion and irritable bowel syndrome [22]. Patients with psychotic disorders can also benefit from this capacity-building format of ISTDP [27,28]. As these phenomena are common in ED, this approach could be clinically relevant for a high percentage of patients suffering from severe and enduring forms of ED [5].

The empirical research on ED treatments has described the outcomes for this fragile population as being equivocal and it is suggested by the authors that a potential explanation of the poor response rate to ED treatments may be due to structural deficits in the psychic organization of this patient population. Therefore, ISTDP may be a suitable alternative in the treatment of this population as it has the scope to work with highly resis-

tant patients as well as fragile patients. In doing so, ISTDP may be well situated to either turn patients against their defenses (i.e., to remove ego syntonic symptoms such as the desire to be thin) or to help build the psychic capacity of patients who struggle to manage extreme anxiety (i.e., fragile patients). When working with ISTDP for fragile patients the therapy is supportive and devoid of any challenge to defenses. The therapy is facilitative of an emotionally active learning where unconscious processes are studied and underscored toward mastering emotions and developing better tolerance of anxiety. Thereafter, some of these unprocessed emotions may be experienced to facilitate grieving of losses and resolution of internal conflicts. Losses related to the illness and emotions around imposed treatments and hospitalizations are also grieved [27,29,5].

Therapists

Therapists were licensed health professionals and trainees learning ISTDP. One of the therapists was a highly experienced ISTDP trainer and supervisor. All therapists were part of weekly small-group supervision led by the experienced ISTDP trainer. Supervision included review of video recordings of treatment sessions to augment treatment fidelity [30]. Therapists were provided technical literature (e.g., [24]) and attended weekly video based seminars. Furthermore, the therapists were provided technical literature on ISTDP and attended weekly didactic courses.

Partway through this study interval, routine fidelity ratings were instituted using a 4-point adherence scale developed for research [31] in which a cut-off score of 3 out of 4 was considered adherent.

Data analysis

In terms of symptom severity as measured through the BSI and IIP, changes over time were investigated using random intercept models with Maximum Likelihood Estimation [32] in order to handle some missing data at post-treatment time. Due to changes in administrative procedures over time, self-reports of symptom severity were acquired only for 21 (77.8%; BSI) and 19 (70.3%; IIP) of the 27 cases treated with ISTDP. The number of cases meeting these criteria were noted before and after treatment. Within-group effect sizes (Cohen's d) were calculated by dividing the differences in means by the pooled standard deviations [33]. Effect sizes can be interpreted as follows: an effect size in the range of 0.20 to 0.49 is small, while 0.50 to 0.79 is moderate, and an effect size of 0.80 or greater is large [34].

We report mean cost- and utilization-based data that were provided from the PHRU as part of the overall sample. Due to data access limitations, we have only year one pre- versus year one post-statistical values. Otherwise we report raw data, and describe the numerical differences 1, 2 and 3 years post treatment compared to the baseline year (pre-treatment).

Results

Sample

A total of 27 cases were included in this study with 22.2% (N=6) under 25 years of age and the remaining 77.8% (N=21) of cases over 25 years of age, with 85.2% being female and 14.8% being male. This gender ratio imbalance is consistent with ED clinical populations. The residential setting for 81.50% of the group was an urban setting with 18.5% living in a rural setting and income was evenly distributed across 4 quartiles.

Participants were found to have clinically derived DSM-V diagnoses AN (22.2%), BN (11.1%) and Other Specified Feeding or Eating Disorder (OSFED) (66.7%). There was a high level of comorbidity including Anxiety Disorders (66.7%), Somatoform Disorders (62.9%), Cluster B Personality Disorders (51.9%), Cluster C Personality Disorders (33.3%) and Major Depressive Disorder (48.1%). The mean number of treatment sessions was 9.81 (SD 12.71).

Self-report outcomes

Mixed-effects model analyses showed significant pre- to post-treatment improvement on both the BSI, $F(1, 22.4) = 48.2, p < .001$ with an effect size of $d = 1.43$ (95% CI: 0.59-2.27) and the IIP, $F(1, 17.3) = 57.0, p < .001$ with an effect size of $d = 1.74$ (95% CI: 0.95-2.52). Means and standard deviations for the raw BSI and IIP scores are presented in Table 2.

Table 2: Observed Means, SDs and effect sizes (Cohen's d) for the Brief Symptom Inventory (BSI) and the Inventory of Interpersonal Problems (IIP).

	Pre-treatment (SD)	Post-treatment (SD)	Mean difference	Effect size (95% CI)
BSI	1.84 (0.69)	0.89 (0.59)	0.95	1.43 (0.59 – 2.27)
IIP	1.77 (0.67)	1.05 (0.84)	0.72	1.74 (0.95 – 2.52)

Table 3: Means (standard deviation) for health care costs

Timeline		Health care Cost ^a			
		Physician		Hospital	
Prior to start of ISTDP	Baseline year	\$839.93	(\$651.58)	\$6,905.65	(\$24,750.08)
After termination of ISTDP	Year 1 (n = 27)	\$724.41	(\$584.25)	\$1,675.65	(\$3,442.30)
	Year 2 (n = 25)	\$796.26	(\$974.03)	\$3,166.39	(\$10,218.63)
	Year 3 (n=18)	\$741.92	(\$627.75)	\$1,109.01	(\$2,593.58)

^aIn Canadian dollars and in 2007-equivalent.

Table 4: Means (standard deviation) for health care utilization

Timeline		Health care					
		Physician		Hospital		Admissions	
Prior to start of ISTDP	Baseline year	18.7	(14)	6.0	(22.11)	0.81	(1.98)
After termination of ISTDP	Year 1 (n = 27)	16.3	(12.89)	1.44	(3.41)	0.48	(0.94)
	Year 2 (n = 25)	17.24	(19.31)	3.52	(13.28)	0.28	(0.54)
	Year 3 (n = 18)	15.44	(12.08)	0.39	(0.85)	0.28	(0.57)

^aIn Canadian dollars and in 2007-equivalent.

The mean number of services utilized by cases for the 12-month period before treatment was 18.7 physician visits, and 6.0 hospital visits with a mean of 0.81 hospital admissions. Mean physician visits reduced by 2.4, 1.46 and 3.26 visits in the three follow-up years. Mean hospital days were reduced by 4.56, 2.48 and 5.61 days in the three follow-up years while hospitalizations were reduced by 0.33, 0.53 and 0.53 per patient in those follow-up years (Table 4). Despite the magnitude of service use and cost reductions these results did not achieve statistical significance between one year pre- and one-year post-treatment.

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. The baseline value was 41% greater than the population mean physician cost of \$595 per Nova Scotian [15]; in follow-up years, doctor costs reduced toward but not below this value. Baseline hospital cost per patient was 5 times the per capita Canadian averages of \$1389 [16]. Treated patients service costs fell below this value by the third year of follow-up suggesting sustained reductions in hospital use.

Discussion

Within specific limitations, this observational study provides preliminary data to indicate that ISTDP may reduce the health care service costs associated with treating this population while also being able to reduce psychological distress for people suffering from ED. While some patients require extended treatment courses, the current findings support the recommendation that a focused brief treatment approaches may be useful, even in tertiary treatment centers and with complex patient populations [35-37].

Many approaches struggle to help people with EDs recover as the patient may either lack motivation to change or lack the capacity to tolerate the anxiety associated with being exposed to a feared object (e.g., food and weight gain). The findings from this study suggest that ISTDP may be an effective alternative for treating these issues and may assist in reducing the overall psychological distress associated with ED in patients referred to a tertiary center. As ISTDP has specific interventions designed to help increase motivation, improve anxiety tolerance and manage personality dysfunction, this may make it a suitable alternative treatment approach for this population [11,5].

Importantly, the average physician and hospital costs associated with cases treated in this study were found to far exceed the average physician and hospital costs per person compared to the general population. The finding that ISTDP treatment was

followed by an average reduction of \$15, 024 per case treated over three years suggests that a brief and inexpensive treatment may be sufficient to minimize the need for costly hospitalizations. Such data adds to the growing evidence supporting PDT as a cost-effective intervention for a range of psychiatric disorders [12,37].

These preliminary results must be interpreted with caution due to several limitations. First, the small number of cases in this study prevented us from undertaking more extensive analyses of the data and it is likely that the current analyses are underpowered. Second, 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 possible that some patients had access to other psychological treatments that we could not capture. Third, we did not have a randomized control condition limiting our ability to draw conclusions about the relative contribution of factors such as time passage; however, given the short treatment duration (average 2 months) and the likely chronicity of patient problems referred to a tertiary service it is likely the treatment added benefits in this short time frame. Fourth, the absence of individual level data precludes description of cases experiencing cost reduction versus no reduction versus cost increases: Inevitably this grouped data may contain some of each of these patient types. Fifth, there were no specific ED or somatic measures so we cannot compare these results to other studies using those measures; we must rely on the indirect measure of health care utilization as no physical measures of health were captured (e.g., Body Mass Index, cardiac output, nutritional panels and other blood test results). Finally, this study did not specifically examine the impact of ISTDP on achieving recovery from an ED.

One strength of this study was its naturalistic design including a number of different therapists, thus, providing a test of this treatment in a real world setting. As such, this study would appear to demonstrate a high degree of external validity. Further we saw that ISTDP was effective in reducing psychological distress in a mixed diagnostic group of ED cases with significant comorbidity; this is relevant as many tertiary ED services struggle with whether to differentiate treating people with significant comorbidities or not. This adds further weight to the notion that short-term treatments maybe effective for people with significant comorbidities. Another strength of this study was that it was based solely on a sample of cases referred to a tertiary service where cases had already been identified as treatment resistant to other approaches and more likely to have persistent excess health service use. Further, since the Centre for Emotions and Health is not an ED specific treatment facil-

ity, these results indicate that gains can be made even when treated in non-specialist ED settings.

Conclusion

This study provides preliminary data that ISTDP may be an effective and cost effective brief treatment for people with an ED that warrants further investigation. To address the limitations of our study, research into the utility of ISTDP will require ED specific measures to be implemented along with somatic measures of physical health, which were not collected in this study due to its observational and retrospective design. Further, given the preliminary data from this observational study, it is recommended that the design of future research efforts include these measures along with the opportunity to compare the outcome of ISTDP treatment to other bona fide treatments, such as CBT-E, by way of a Randomized Controlled Trial (RCT).

Data availability statement

The datasets during and/or analyzed during the current study available from the corresponding author on reasonable request.

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