Effectiveness and Cost Effectiveness of Davanloo's Intensive Short-Term Dynamic Psychotherapy: Does Unlocking the Unconscious Make a Difference?

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More than 20 years ago Habib Davanloo coined the term unlocking of the unconscious *to describe how the psychodynamic concept of the human unconscious can become accessible using the technique of Intensive Short-Term Dynamic Psychotherapy (ISTDP). According to Davanloo, the possibility that unconscious material will be revealed is greatly increased when therapeutic efforts promote dominance of the* unconscious therapeutic alliance *over* unconscious resistance*. When these ingredients are present there is a psychic shift that allows unacceptable painful feelings to come to the surface. Toward adding further empirical support for the concept, in this article we compare outcomes between patients who experienced one or more* major unlocking of the unconscious *(N=57) to those who did not experience* major unlocking *(N=32) during ISTDP treatment. Significant and widespread differences were seen between these two groups, those with* major unlocking *had greater symptom reduction, interpersonal gains, and cost reduction* for treatment*. The relevance of this to clinical practice and healthcare utilization will be discussed.*

KEYWORDS: Davanloo; psychodynamic therapy; unconscious; emotions

BACKGROUND

Westen (1998b), in support of psychodynamic treatments, cited a plethora of experimental research from the field of cognitive neuroscience, demonstrating that much of mental life is unconscious and supporting the

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basic analytic premise that people actively try to forget unwanted past experiences. The literature on the effectiveness of psychotherapy reveals an expanding evidence base for psychodynamic therapies (Shedler, 2010; Town, Diener, Abbass, Leichsenring, Driessen & Rabung, 2012). Psychotherapy change-process research (Greenberg, 1986) may be a "necessary complement" (Elliott, 2010, p. 123) to this field to inform the nature of change. Garfield (1990) has pointed out that we study process primarily to increase effectiveness therefore the two are not divorced. The importance of recent research efforts targeting the question of with whom dynamic techniques work, for what, and how (Blatt & Sharar, 2004) may also facilitate a shift away from pejorative debates about the relative merits of dynamic theory past and present, to instead studying what happens in dynamic psychotherapy that is associated with positive change.

Evaluating Causal Effectiveness

There are many riddles that underlie the reasons and motivators for human behaviour: the same can be said for deducing outcomes of psychotherapy. In recent decades, research has amassed evidence that points towards a common factors model for understanding the mechanisms by which psychotherapy works (Wampold, 2001). However, alongside process predictors common to many therapies, such as the therapeutic alliance (Horvath, Del Re, Flückiger & Symmonds., 2011; Orlinsky, Ronnestad & Willutzki, 2004), all psychotherapy treatments are informed by theories that explain how change occurs. The empirical study of theoretical assumptions, fundamental to the architecture of how specific treatment approaches are delivered, is less common. In respect to psychodynamic schools of therapy, to a more or lesser extent, contemporary approaches are informed by the principle of facilitating awareness of "unconscious processes" (Westen, 1998a) to understand how internal networks and associations exert an influence over the mind. An important task, then, must be to operationalize the mechanisms by which changes in unconscious mental processes are facilitated and how therapeutic benefit may subsequently be achieved.

A range of factors in dynamically informed therapies have been highlighted and studied including specific sequences in patient-therapist interaction within treatment (e.g., The Referential Process- Bucci, 1984; and The Therapeutic Cycles Model- McCarthy, Mergenthaler, Schneider & Grenyer, 2011), the role of emotion mobilization (Diener, Hilsenroth & Weinberger, 2007) and cognitive-emotional integration through mentalization (Fonagy, Gerely, Jurist & Target, 2002). Such research holds

promise for advancing our understanding about the intricacies that contribute to therapeutic change. However, it remains unclear to what extent this empirical base generalizes within and between different models of psychodynamic psychotherapy and equally other talking therapies, given the variation in theories and technique that underpins them.

A Contemporary Line of Dynamic Enquiry

The method of Intensive Short-Term Dynamic Psychotherapy (ISTDP) emerged in the 1970's, informed by traditional psychoanalytic theory, but modified with the explicit goal of engaging highly resistant patients and avoiding prolonged and often interminable courses of exploratory therapy. Davanloo reported the positive outcomes in a longitudinal case series (1990) and established technical guidelines and the theoretical basis for this approach (Davanloo, 1990, 2000, 2005). The literature for ISTDP has recently been reviewed, identifying 21 published outcome studies, and a further 12 empirical studies, and the studies underwent meta-analysis where possible (Abbass, Town & Driessen, 2012). These studies, with various degrees of rigor, support the effectiveness of the model and point to its cost effectiveness in real world settings. That process research which currently exists offers preliminary support for several basic underpinning principles of the metapsychology and technique as developed by Davanloo (See, Abbass, Town & Driessen); however, consistent with the status of the psychotherapy field in general (Johansson & Høglend, 2007), theory-driven empirical testing is necessary because it remains questionable exactly how change occurs.

Predicting Change in ISTDP

While it is beyond the scope of this article to summarize the ISTDP approach, we recommend Davanloo's (2005) article, *Intensive Short-term Dynamic Psychotherapy*, for this purpose. If the central objective of dynamic therapy is to assist the patient develop a conscious understanding of and reach a resolution around inner conflicts, Davanloo's ISTDP may be distinguished through its emphasis on the rapid removal of resistance: this process of *unlocking of the unconscious*[1] allows the meaningful exploration and interpretation of hidden, anxiety laden feelings defended against and the anxieties driving these. Theoretically, this psychotherapeutic process involves mobilization and dominance of the *unconscious therapeutic alliance* (UTA) over the forces inside a patient (*resistance*) that interfere with

[1] Theoretical concepts specific to Davanloo's ISTDP (1990, 2000, 2005) will be italicized from here on to distinguish them from any colloquial meaning.

the therapeutic relationship (Davanloo, 1986). The UTA is the healing force that enables the patient to report new material shedding light on the dynamic factors responsible for symptom and character disturbance. When this force is dominant over the *resistance*, the unconscious is said to be *unlocked* and clear linkages, memories and images associated to core trauma related to ruptured attachments and other trauma become accessible.

Davanloo has defined various degrees of *unlocking of the unconscious* (Davanloo, 1995a). A *major unlocking*[2] is said to have occurred when, during the passage of intense complex feelings toward the therapist or another current figure, the visual imagery of the past person is seen transferred onto the image of the current person and replaces this image. This is actually a passage of complex feelings toward the past figure, catalyzed by the emotions activated in the therapy session. With this visual association come emotion-laden memories about painful feelings, situations and events from the past. Anxiety and defences are markedly quieted during this process so that the patient can walk relatively calmly through and experience hitherto avoided emotions. This process is the objective of the ISTDP treatment process: namely, dominance of healing forces over those of resistance, thus enabling the working through of underlying emotions in an efficient fashion.

One may theoretically surmise that the event of a *major unlocking of the unconscious* (Davanloo, 1990) within the patient-therapist dyad sets the stage for psychotherapeutic change during ISTDP: this is the subject of the current research paper, which uses a dataset in which a causal relationship between treatment and patient outcome has previously been established (Abbass, 2002). To our knowledge, no attempts have been made to study empirically the nature of the currently discussed relationship.

Objectives

In the report, we examine the pre-treatment versus post-treatment data to answer the following questions:

1. Is there any significant difference in self reported outcomes between those who had *major unlocking of the unconscious* and those who did not?
2. Is there any significant difference in cost savings between these two groups?

[2] Based on the concepts and writings of Davanloo (1995), this formed the definition of *Major Unlocking* in the current study.

3. Is there any significant difference in functional outcomes between these two groups?

Related to points 1 to 3, we will examine correlates of any observed effects and discuss clinical and research implications.

METHODS

Design

The current study is based on outcome data collected in a published quasi-experimental treatment-outcome study of ISTDP (Abbass, 2002). This outcome dataset is supplemented with previously unreported process data on treatment change factors. As part of the original project treated patients were coded into categories based on the standardized theoretical concepts of rise in and experience of unconscious processes (Davanloo, 1990, 1995b) and degree of patient *resistance* (Davanloo, 1995a). Based on ratings of well-defined theoretical concepts, it was possible to extrapolate pre- and post-treatment patient self-reported outcomes and healthcare cost data for patients categorized as experiencing *Major Unlockings of the Unconscious* and in the group of patients who did not. Patient *resistance* was available as a possible covariate. New analyses were conducted to examine purported dynamic change mechanisms underlying treatment effectiveness in ISTDP.

Participants

This study examines the self-reported outcomes and healthcare related cost outcomes of 89 patients, classified into two groups, who were treated with ISTDP in a private psychiatric practise. Based on clinical interviews and using DSM-IV classifications (American Psychiatric Association, 1994), these patients were a moderately ill group, 52% had personality disorders, 25% were unemployed and receiving disability payments. An average of 14.9 sessions of therapy was provided for these patients (see Abbass (2002) for further details). We previously reported on the considerable cost and clinical benefits accrued by these patients in this naturalistic study, which by 1-year follow-up equalled three times the treatment cost (Abbass, 2002). Grouped health care cost data was provided by the Province of British Columbia Ministry of Health. This data included hospital use and physician costs averaged by groups of patients. The cost of a hospital day was determined to be $550 and this multiple was used to calculate mean hospital costs. Mean (and standard deviation) physician direct billed costs were provided.

VARIABLES

Unlocking of the Unconscious (Group)

Davanloo provided qualitative descriptions of distinguishable phases that occur during the mobilization of unconscious processes (Davanloo, 1995). Using audio-visual case material, he reported having replicated these findings in longitudinal case series data (Davanloo, 2005). Derived from this manualized framework, differences in in-session treatment events were operationalized within a quantitative coding system. The five coding categories are: *low rise in complex transference feelings*, *high rise in complex transference feelings, partial breakthrough of complex transference feelings, partial unlocking of the unconscious, major unlocking of the unconscious.*

Based on the empirical question of interest in this study, the experimental variable group was categorized at two levels: Patients experiencing one or more *major unlocking of the unconscious* in therapy compared to cases with *no major unlocking.*

Degree of Resistance (Resistance)

Resistance is any unconscious or previously unconscious defense operating in the therapy relationship. According to Davanloo (1990), psychopathological disturbance can, in part, be understood by degree of patient *resistance*. He demonstrated a clinical association between intensity of unconscious feelings and the degree of *resistance* through operationally defining patient categories (1986). In a series of more than 1000 patients, Davanloo (2005) distinguished five major groups of patients with neuroses and a further three subcategories of patients with *fragile character structure*. In total, there are eight categories, five major groups on the *Spectrum of Psychoneurotic Disorders* (Davanloo, 1986*)*: *extreme left, mid-left, mid-spectrum, mid-right, extreme right*. The three on the *Spectrum of Fragile Character Structure* are*: mild fragility, moderate fragility, and severe fragility.*

In order to optimize power within statistical analyses, for the purposes of this study *resistance* was dichotomized to reflect two differing levels of patient pathology: (1) *lesser resistance*, consisting of patients on the extreme left to mid-right on the *Spectrum of Psychoneurotic Disorders*, and (2) *extreme resistance,* patients on the extreme right of the *Spectrum of Psychoneurotic Disorders* and those with *fragility*.

Treatment Outcome Self-Report (Change Score)

Four sources of patient outcome data were available to examine the degree of change (effectiveness) in respect to the effect of Group. Raw pre-

and post-treatment scores were converted to Change Scores for this purpose (Change Scores = Post score – Pre score). Outcome data was available on the Brief Symptom Inventory (BSI-53; Derogatis & Melisaratos, 1983), the Inventory of Interpersonal Problems (IIP-64; Horowitz, Rosenbert, Baer, Ureno & Villasenor, 1988), the Beck Depression Inventory (BDI; Beck & Steer, 1987) and the Beck Anxiety Inventory (BAI; Beck & Steer, 1990). Eighty of the 89 patients completed at least one pre-post therapy measure each. In order to control for the impact of patient drop-out and missing data, intention to treat analyses were conducted using the last measurement carried forward procedure. Due to the quasi-experimental nature of the design, measurement data on all scales was not available for all patients.

Pre-Treatment Self-Report (Pre-Score)

Patient self-report questionnaire data was collected prior to treatment onset for baseline measurement. Included was the self-report measure the Dimensional Assessment of Personality Pathology Basic Questionnaire ([DAPP-BQ] Livesley, 2006), a measure of enduring self-perception of personality disorder burden. This measure was introduced after the start of the data collection period; therefore, not all treated patients were asked to complete this questionnaire.

RESULTS

Within the total treated sample (N = 89), there were 57 patients in the *Major Unlocking* Group with an average age of 38.8 years, 48% being male, who received on average 16 sessions. In comparison, there were 33 patients in the *No Major Unlocking* Group: 58% were male, the mean age was 40.9 years, and treatment length was on average 13 sessions. In total, 63 patients completed the DAPP-BQ (Livesley, 2009). Both groups reported moderate to large personality disorder burden (M = 86.3, *Major Unlocking* N = 43; M = 89.2, *No Major Unlocking* N = 20). Statistical analysis revealed no significant Group differences ($p > 0.05$) on age, gender, DAPP-BQ scores, or treatment length. All patients who completed pre-treatment self-report data were included in the analyses of outcome data. Statistical analyses were computed with Statistical Package Social Science version 19; all analyses were two-tailed and the threshold for significance was .05 unless otherwise specified.

Baseline data

Random assignment of patients to *Major Unlocking* versus *No Major Unlocking* response was not possible with this design. Therefore, we

Table 1. PRE-TREATMENT SELF-REPORT SCORES AS A FUNCTION OF RESISTANCE LEVEL AND UNLOCKING GROUP

Outcome Scale	Resistance Level	Major Unlocking		No Major Unlocking		Both Conditions		Analysis of Variance Statistical Parameters		
		N	M (SD)	N	M (SD)	N	M (SD)	Factor	F(df 1,3)	p
BDI	Less	41	15.9 (9.6)	11	18.5 (9.1)	52	16.4 (9.4)	Resistance	0.67	.414
	Extreme	13	16.6 (8.5)	16	21.4 (7.5)	29	19.3 (8.2)	Unlocking	2.66	.107
	Both levels	54	16.0 (9.3)	27	20.2 (8.2)	81	17.4 (9.1)	Interaction	0.25	.622
BAI	Less	40	17.1 (9.7)	11	19.1 (12.0)	51	17.5 (9.7)	Resistance	0.26	.613
	Extreme	13	16.6 (10.7)	14	22.3 (10.3)	27	19.6 (10.7)	Unlocking	2.08	.153
	Both levels	53	17.0 (9.8)	25	20.9 (11.0)	78	18.2 (10.3)	Interaction	0.49	.486
BSI-53	Less	36	69.8 (33.2)	9	82.0 (32.9)	45	72.2 (33.1)	Resistance	0.01	.972
	Extreme	11	71.3 (40.2)	12	79.8 (32.2)	23	75.7 (35.6)	Unlocking	1.18	.281
	Both levels	47	70.1 (34.5)	21	80.7 (31.7)	68	73.4 (33.8)	Interaction	0.04	.849
IIP-64	Less	36	82.7 (40.6)	9	103.2 (33.3)	45	86.8 (39.8)	Resistance	0.01	.943
	Extreme	11	83.9 (47.7)	12	103.7 (38.0)	23	94.2 (43.1)	Unlocking	3.15	.081
	Both levels	47	83.0 (41.8)	21	103.5 (35.2)	68	89.3 (40.7)	Interaction	0.01	.974

* $p = < .05$

carefully explored potential baseline differences in Pre-Scores across the two levels of the *Unlocking* Group factor and also across the dichotomous *Resistance* factor. Analyses of variance (ANOVAs) revealed no significant differences across levels of these two factors (Table 1).

Outcome data

Change Scores (Pre-Scores minus Post-Scores) were used to evaluate the impact of *Major Unlocking* in self-reported treatment outcomes. Change Scores detect the magnitude of differences between Pre-Scores and Post-Scores but they are not sensitive to potential Group differences in outcomes caused by baseline differences in symptom severity or patients' capacity (*Resistance*). Therefore, *Resistance* (2 levels) and Pre-Scores (continuous data) were considered as covariate factors of Change Scores, using an ANCOVA model with one Group factor (*Major Unlocking* versus *No Major Unlocking*). Given the slightly different sample sizes across the four self-report measures, one ANCOVA was computed for each of the outcome measures BSI-53, BAI, BDI and IIP-64, and the threshold for significance was adjusted to .0125 (.05/4).

For each outcome measure, the ANCOVAs revealed a significant effect of the *Major Unlocking* Group while holding constant baseline symptom severity and *Resistance* level: the magnitude of Change Scores was greater in patients with a *Major Unlocking* response. The strength of the relation-

Table 2. STATISTICAL PARAMETERS FOR CHANGE SCORES

		Group		Statistical Parameters		
	Factor	Major Unlocking M (SD)	No Major Unlocking M (SD)	$F(1,3)$	p	partial η^2
BSI-53	Group Unlocking	46.5 (29.5)	32.0 (31.7)	6.9	.011**	.10
	Covariate Pre-scores			70.6	<.001*	.52
	Covariate Resistance			10.9	.002*	.15
BAI	Group Unlocking	12.0 (8.7)	8.0 (9.6)	11.0	.001*	.13
	Covariate Pre-scores			106.2	<.001*	.59
	Covariate Resistance			15.7	<.001*	.18
BDI	Group Unlocking	10.9 (7.7)	7.3 (7.4)	8.7	.004*	.10
	Covariate Pre-scores			50.8	<.001*	.40
	Covariate Resistance			7.6	.007*	.09
IIP-64	Group Unlocking	37.6 (30.5)	17.0 (32.5)	16.0	<.001*	.20
	Covariate Pre-scores			42.6	<.001*	.40
	Covariate Resistance			1.7	.197	.03

* $p = < .01$. ** $p = < .05$

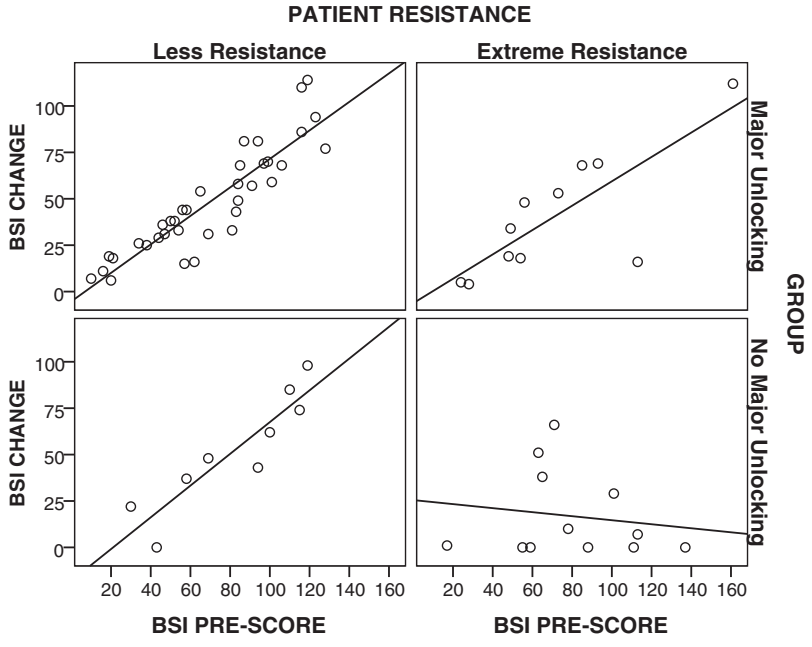
ship between *Unlocking* Group and magnitude of Change Scores, as assessed with partial η^2 revealed that the Group factor accounted for about 10% of the variance in Change Scores for the BSI-53 and the BDI, 13% for the BAI, and 20% for the IIP-64. A very strong effect size was observed for the covariate Pre-Scores entered in the statistical model (accounting for 40% to 59% of the variance in Change Scores); the covariate *Resistance* had a smaller effect size (accounting for 9% to 18% of the variance in Change Scores).

Figures 1-4 present a visual representation of the association between Pre-Scores and Change Scores when the interaction between Group and *Resistance* is considered. Inspection of the slope lines reveals a positive linear relationship between Change Scores and Pre-Scores on the BDI, BAI and BSI-53 across Groups and *Resistance,* except for patients with extreme *Resistance* in the *No Major Unlocking* Group. Figure 4 illustrates the result of the ANCOVA that *Resistance* does not appear to be a covariate of this relationship on the IIP-32.

Relationship between *Unlocking the Unconscious* & Functional Improvements

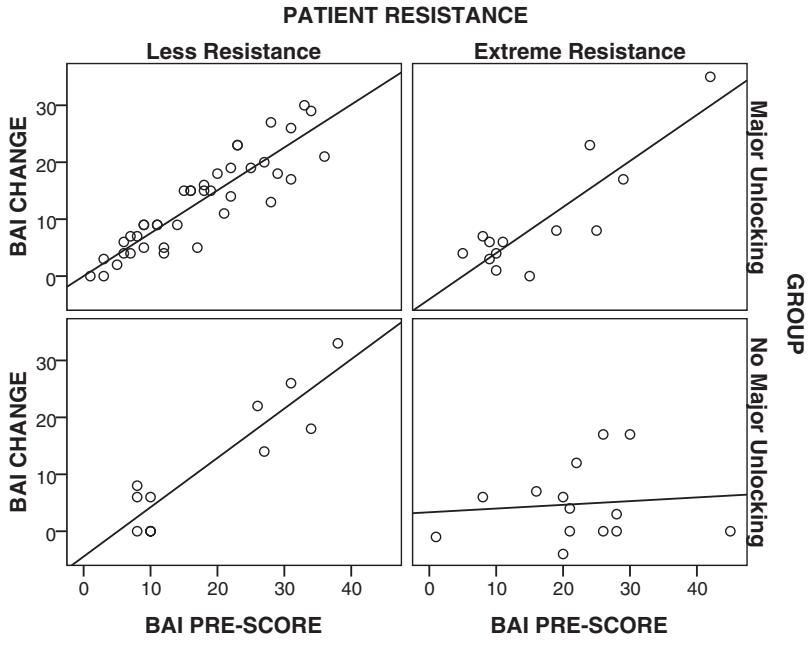
To evaluate the impact of *Unlocking* Group on patients' functional improvement, two-way contingency table analyses were conducted on two indicators of patient functioning. The outcome variables of interest were patients' return to work status and proportion of patients discontinuing all psychotropic medications. Chi square (χ^2) analyses revealed a significant

Figure 1.
BSI CHANGE SCORES AS A FUNCTION OF UNLOCKING GROUP, PRE-SCORES AND RESISTANCE LEVEL



effect of Group on the frequency of patients returning to work during treatment (χ^2 (1, N = 41) = 11.33, p = 0.001, Cramer's V = .52). Comparison of the expected and observed values within the Chi-squared cells revealed that a greater number of patients in the *Major Unlocking* Group returned to work (84.6%, N = 22) and the reverse was true of patients in the *No Major Unlocking* Group (15.4%, N = 4). Using Chi-squared analysis, a significant effect of Group was also found on the frequency of patients discontinuing all medications versus remaining on medication post-treatment (χ^2 (1, N = 26) = 13.48, p = 0.000, Cramer's V = .720). Of the fourteen patients who were on medication pre-treatment and subsequently had a *Major Unlocking* within therapy, 100% discontinued medication during treatment, while 33.3% (N = 4) in the *No Major Unlocking* Group discontinued medication during treatment. According to Cohen's (1988) criteria, both findings reported here are considered large effects ($\varphi > 0.5$ = large); however, using more conservative criteria ($\varphi >$ 0.5 = moderate), these effects would be considered moderate in size (Ferguson, 2009).

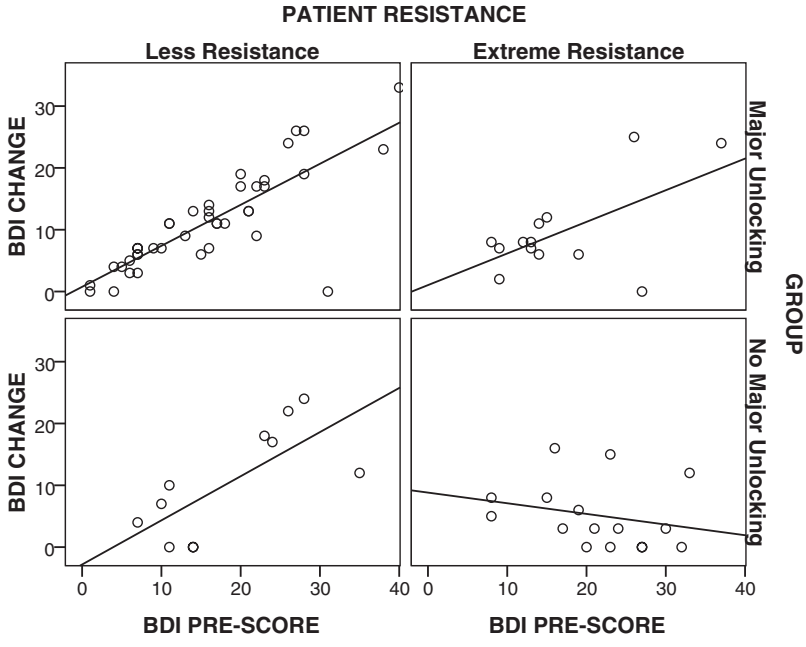
Figure 2.
BAI CHANGE SCORES AS A FUNCTION OF UNLOCKING GROUP, PRE-SCORES AND RESISTANCE LEVEL



Relationship between Healthcare costs and *Unlocking the Unconscious*

Mean pre-treatment healthcare costs and post-treatment cost reductions were compared between patients with *Major Unlockings* (N=57) and patients with *No Major Unlockings* (N=32), using appropriate *t* tests (Table 3). During the year prior to ISTDP treatment, there were no Group differences in baseline physician billings, hospital costs and combined total costs. Post-treatment data showed that for physician costs, the *Major Unlocking* Group had a significant $273 CDN (49.2%) drop ($p = .022$) while patients with *No Major Unlocking* had a non-significant $51 CDN (8.1%) reduction in costs. Post-treatment, a statistically significant between Group difference was found ($p = .006$) revealing larger cost savings in the Major Unlocking Group. In terms of hospital costs, both groups had large post-treatment reductions, each group reaching to below costs for matched population of controls ($265 CDN). However, neither of these reductions were statistically significant; likewise, there were no Group differences in post-treatment hospital costs. Finally, the post-treatment combined costs were significantly different between the two groups of

Figure 3.
BDI CHANGE SCORES AS A FUNCTION OF UNLOCKING GROUP, PRE-SCORES AND RESISTANCE LEVEL

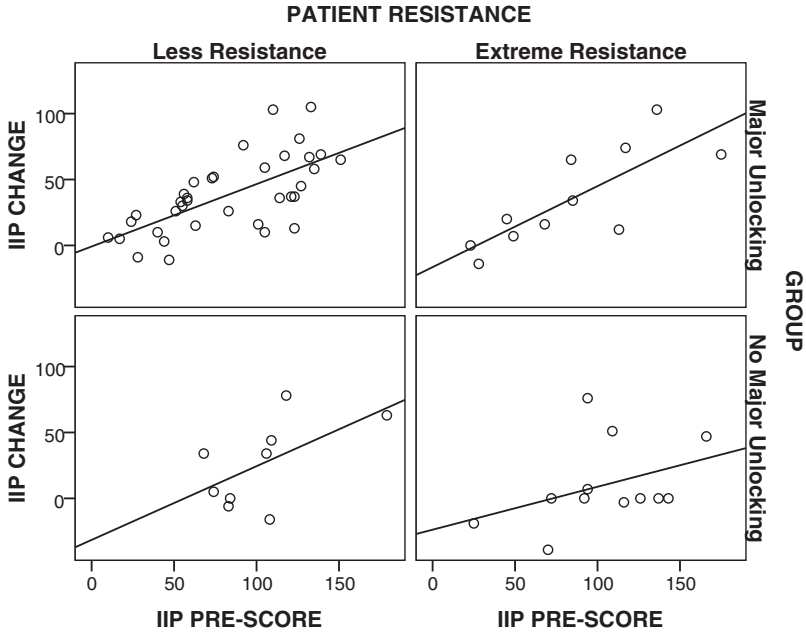


patients ($p = .005$), whereby the *Major Unlocking* Group reached to below a matched whole population norm ($407/year) while patients with *No Major Unlocking* did not.

DISCUSSION

The current study presents a preliminary attempt to operationalize the therapeutic event of accessing dynamic unconscious emotions according to a specific line of dynamic theory (Davanloo, 1990, 2000) with a view to examining treatment effectiveness when this takes place. Naturalistic outcome data is presented, collected before and after a course of ISTDP. Patients were categorized in two groups according to whether or not they had *Major Unlocking of the Unconscious* during treatment sessions. We were struck to find significant superior treatment effects in the *Major Unlocking* patient Group on measures of psychiatric symptoms, interpersonal functioning, functional measures, and service utilization post-treatment. This evidence of significant diffuse outcome contributions endorses a key therapeutic role of *unlocking the unconscious* and may highlight

Figure 4.
IIP CHANGE SCORES AS A FUNCTION OF UNLOCKING GROUP, PRE-SCORES AND RESISTANCE LEVEL



indications for understanding the complexities of change in psychotherapy.

We characterized *Major Unlocking of the Unconscious* as a discrete, observable, in-session event, defined by a specific therapist-patient interaction preceding a major patient communication revealing in depth, affect laden material about past attachment trauma. One can question whether or not these events exist along a continuum. Patients in the *No Major Unlocking* Group experienced a degree of mobilization of the unconscious

Table 3. HEALTHCARE COSTS AS A FUNCTION OF UNLOCKING GROUP

	Major Unlocking Group			No Major Unlocking Group			
Cost Measure	Pre (n = 57) M(SD)	Post (n = 57) M(SD)	Repeated *t* test Pre vs. Post *p*	Pre (n = 32) M(SD)	Post (n = 32) M(SD)	Repeated *t* test Pre vs. Post *p*	Independent *t* test Post vs. Post *p*
Physician Costs	556 (753)	283 (469)	.022**	630 (942)	579 (963)	.830	.006*
Hospital Costs	270 (1441)	22 (160)	.200	566 (2887)	110 (484)	.380	.210
Combined Healthcare Costs	826 (1440)	305 (1025)	.001*	1196 (2147)	689 (762)	.210	.005*

* $p = < .01$. ** $p = < .05$

but not a major access. The finding of wide-ranging and significantly larger treatment effects in those with a *Major Unlocking* is even more suggestive of the importance of *degree* of emotional processing. It could also suggest that *Major Unlocking* is a threshold event markedly superior to lesser degrees of mobilization. The fact that an experienced ISTDP clinician identified fifty-seven treatments from a case-series of eighty-nine treated patient in which a *Major Unlocking* occurred indicates that this event was common in a relatively brief treatment course of this treatment.

Previous research has highlighted the relationship between higher levels of patient affective arousal and preceding active therapist confrontation to impulse/feeling and patient defense (Town, Hardy, McCullough & Stride, 2012) and an association between patient affect responses and outcome (Taurke, Flegenheimer, McCullough, Winston, Pollack & Trujillo, 1990) in STDP. The nature of the specific therapist interventions, invariably involving systematic challenge to the *Resistance*, preceding the breakthrough should therefore also be considered of likely significance in contributing to this finding. Theoretically, this result may point to the importance of three theoretical dynamic principles: (1) Access to painful hidden memories is proportional to degree of mobilization of the *unconscious therapeutic alliance*; (2) the relevance of exploring feelings in current relationships or towards the therapist is their route to the patient's past; (3) de-repression, experiencing, and gaining insight about painful emotions weakens unconscious associations and connections preventing repetitive, habitual and maladaptive operations, thus making way for major therapeutic benefit.

Given the significant affective component within a *Major Unlocking*, the 'common factors' (Wampold, 2001) literature points to the possible overlap this construct may have with common descriptions and measures of patient heightened emotional experiencing (Klein, Mathieu-Coughlan, Gendlin, & Kiesler, 1969; Klein, Mathieu-Coughlan, & Kiesler, 1986), and arousal (McCullough, Larsen, Schanche, Andrews, Kuhn & Hurley, 2003; Warwar & Greenberg, 1999). As such, the current finding may be consistent with interpretations of research evidence suggesting the utility of facilitating emotional processing (Diener & Hilsenroth, 2009; Salvadori, 2010; Whelton, 2004) and evidence that it correlates with improvement (Diener, Hilsenroth & Weinberger, 2007). Second, we note that whilst achieving a spontaneous genetic link to a patient's past is a central issue within ISTDP and other dynamic schools, this also may represent a sophisticated description of patient insight. Limited research, generally using broad definitions of insight, suggests that amount of gain in patient

insight over treatment is likely associated with improvement (Connolly Gibbons, Crits-Christoph, Barber & Schamberger, 2007). The current findings are more consistent with the principle that the concept of insight, with its inherent complexities, is best understood through measurement of specific insights about core-conflictual relationships or salient issues.

A secondary research finding revealed that patients with extreme *Resistance* seemed to require *Major Unlocking of the Unconscious* to benefit. This matches the basic principle of ISTDP: that *Resistant* patients need greater mobilization of the *unconscious therapeutic alliance* to promote change. Previous research using standardized measures of patient defense in dynamic therapies has also shown that initial defense ratings predict outcome (Høgland & Perry, 1998) and dynamic therapists intuitively respond to patient defences with more psychodynamic-interpersonal interventions (Siefert, Hilsenroth, Blagys & Ackerman, 2006) leading to improved outcome (Hersoug, Bogwald & Høgland, 2003). Whilst empirical findings support the dynamic principle that resistance opposes psychotherapeutic efforts, interfering with patients' ability to make use of insights and tolerate affects (Dozier & Kobak, 1992), the *Unlocking* process may represent an important tool in the clinician's kit to facilitate change and avoid protracted or interminable treatments with such patients.

Patients categorised as extreme *Resistance* in this sample presented with diffuse symptoms, lifelong character pathology, many of whom exhibited immature defences based on clinical observation (Davanloo, 1995a; Vaillant, 1992). We suspect that it is this population, categorized as having low Quality of Object Relations (Piper, Joyce, McCallum & Azim, 1993), that previous STDP research (Piper, Azim, McCallum & Joyce, 1990; Piper, Joyce, McCallum & Azim, 1998) indicated that the priority in treatment may not be examining problematic past relationships (Joyce & McCallum, 2004). The current study points towards the importance of *unlocking the unconscious* with these complex groups of patients and indicates a greater range of patients than first thought have the underlying capacity to tolerate intense therapeutic emotional experiences. These results complement recent empirical evidence suggesting transference focused dynamic interventions (Høgland, Amlo, Marble, Bogwald, Sorbye, Sjaastad et al., 2006; Høgland, Johansson, Marble, Bogwald, & Amlo, 2007; Høgland, Bogwald, Amlo, Marble, Ulberg, Cosgrove et al., 2008) and treatment models (Abbass, Sheldon, Gyra & Kalpin, 2008; Clarkin, Yeomans & Kernberg, 1999) can be helpful for those with poor objective relations and personality disorder (Town, Abbass & Hardy, 2011).

There are several limitations to this study that limit interpretation of the findings. First, the reliability of ratings identifying the presence of a *Major Unlocking* and designation of levels of *Resistance* are unclear. Although measurement reliability would have been enhanced by ongoing therapist videotaped supervision and reference to the original manualized description of these variables, the use of therapist ratings rather than those of an independent observer could have led to experimenter bias. This is made less likely by the fact that ratings were done *a priori* without knowledge of this retrospective analysis, but it cannot be ruled out. Second, the study design relied upon patient self-report for measurement of symptom and interpersonal change and patients were not randomly assigned to group. The healthcare use data was, however, provided blinded, in grouped fashion by the government of British Columbia and based on an *a priori* categorization by the therapist. Third, to establish a causal process-outcome relationship, further study is required using randomized allocation and a dismantling method specifying rise in mobilization of unconscious processes between treatment group. It would however be difficult to experimentally manipulate the variable of *unlocking of the unconscious* without inadvertently confounding the effects of other common and specific treatment factors. Nevertheless, it remains a possibility that the different treatment effects seen between Groups were not in fact associated to the presence of heightened emotional processing of unconscious material, rather some other construct not measured or existing patient differences between Groups. To adjust for the later possibility, intention to treat analyses were performed and pre-treatment self-report scores and levels of *Resistance* controlled for. Furthermore, neither the mean pre-treatment scores on the BSI, IIP, BAI, BDI, DAPP-BQ nor cost measures 1-year pre-therapy differed significantly between the groups: thus, patient Groups appear more similar than different.

Based on the above, future research into *Major Unlocking* is warranted. Future research should clarify if the theoretical distinction between a *Major Unlocking*, complete with visceral experiencing of guilt laden rage, grief and the insight gained with a genetic image transfer, is empirically justified and if so, to what extent such differences between in-session treatment events contribute to the relative size of treatment effects. Improvements in future research methodologies can include multiple assessments of in-session process and post-session outcome to examine the temporal relation between the presumed putative change variables and proposed outcome. Second, blinded standardized ratings of *Unlocking* events and patient *Resistance* should be established. Such a rating guide is

in development now to be piloted (Town & Abbass). Although preliminary data in developing an adherence guide for ISTDP supports that the events can be reliably coded from videotaped sessions (Abbass et al., 2008).

CONCLUSION

Thus, this study offers further evidence to support existing evidence that emotional mobilization and patient insight are important components of psychotherapy. We believe it goes even further by offering preliminary data on key dynamic variables in psychodynamic treatment that warrant further elucidation, evaluation and study. Activation of the *unconscious therapeutic alliance* should be studied as a potential common factor across therapy models.

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