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An Investigation into whether Insight Acquired in Psychotherapy is Associated with Treatment Outcome

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Declaration

It is confirmed that this work has not been submitted for any other degree or to any other institution.

Word count

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Literature review	7,998
Research report	9,952
Appendices	1,921
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Abstract

Literature review

The importance of the role of insight in achieving desirable psychotherapeutic change has been emphasised across theoretical schools of psychotherapy. The aim of this literature review was to explore empirical findings of the effects of insight acquired during the course of psychotherapy on treatment outcome. A systematic review found 20 eligible studies. The findings showed a considerable variation in research designs and methodological approaches used; a lack of a consistent definition of insight across empirical studies; and a large disparity in approaches employed to measure insight. The findings provided only tentative evidence for the theoretical proposition that acquisition of insight during the process of psychotherapy is implicated in treatment outcome.

Research report

An empirical study aimed to investigate the role of insight as a putative mediator between affect experiencing and treatment outcome using a single case series design. It examined a relationship between an increase in affect and an increase in insight over the course of psychotherapy. Session-by-session insight scores were obtained by coding the video-recordings of the sessions of four participants who underwent 20 sessions of Intensive Short-term Dynamic Psychotherapy (ISTDP). The data archive from a prior study was used to obtain emotional experiencing and outcome scores. The findings do not support the role of insight as a mediator between affect experiencing and treatment outcome. The participants did not show greater levels of insight following the segments of therapy where there were higher degrees of affect experiencing. However, within the limitation of the present study, insight and affect experiencing emerged as possible independent predictors of self-reported treatment outcome.

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This thesis is dedicated to the loving memory of my grandmother Liudvisė, who taught me lessons in love and perseverance.

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Section 1

Literature Review

The Role of Patients' Insight in Psychotherapy and its Implications for the Treatment Outcome: a Literature Review

Abstract

Objectives. The aim of this literature review was to explore empirical findings concerned with the effects of insight acquired during the course of psychotherapy on treatment outcome.

Methods. A systematic search of relevant databases according to predefined criteria was conducted. Quantitative studies with a focus on working age adults, investigating insight in relation to treatment outcome in individual or group settings and published in English were included.

Results. The review of 20 studies revealed considerable variation in their designs and methodological approaches. An overarching problem with the research into insight and its association with treatment outcome was the lack of a consistent definition of insight. Another issue concerned the measurement of insight; the instruments and the assessors used, and timings of when in the course of treatment insight was assessed, which considerably varied across the studies.

Conclusions. The findings of this literature review provide only tentative evidence for the theoretical proposition that acquisition of insight is implicated in treatment outcome. Further research with better designs and consistent operationalisation of insight is required.

Key words: insight, self-understanding, psychotherapy process research, change.

The development of insight in psychotherapy has long been regarded as one of the central psychotherapeutic processes associated with patient change (Connolly Gibbons, Crits-Christoph, Barber, & Schamberger; 2006; Schonbar, 1965). Although historically linked to the psychodynamic tradition, the concept of insight has been integrated within other therapeutic modalities, including those of humanistic, experiential and cognitive orientations (Ellis, 1963; Messer & McWilliams, 2006; Pascual-Leone & Greenberg, 2006). Across therapeutic modalities insight has been referred to using several sister terms such as *awareness* and *self-understanding* and considered as a product of psychotherapeutic process (Connolly Gibbons et al., 2009; Hoffart et al., 2002; Pascual-Leone & Greenberg, 2006).

Despite the centrality of insight in psychotherapy theory, little is known about the mechanisms by which insight operates to bring about personal change (Miller, 1992). Since the 1950s attempts were made to provide empirical evidence for the relationship between insight acquired in psychotherapy and treatment outcome (e.g., Vargas, 1954). Research was carried out across therapeutic approaches (e.g., Hoffart et al., 2002; Høglend et al., 1994; Pascual-Leone & Greenberg, 2006; Sexton, 1996) with the majority of the studies clustering around a psychodynamic approach. One issue that has been highlighted within empirical and theoretical considerations is that of an absence of a consistent definition of insight (Connolly Gibbons et al., 2006).

Most authors broadly agree that acquisition of insight is an experience of new learning about the self (Hill et al., 2006). However, under such a broad conceptualisation of the construct, diverse connotations of insight exist, leading to distinct operationalisations of the term in the research. Strachey (1934) proposed a distinction between emotional and intellectual insight within the psychoanalytic tradition and suggested that merely intellectual insight cannot have a curative effect. Within the cognitive tradition, Albert Ellis (1963) considered emotional insight as a

source of commitment and empowerment for a client to take a role of an active agent in the process of therapeutic change. Although some researchers have proposed that the distinction between emotional and intellectual insight can be hard to make in therapy and such a distinction is typically retrospective (either leading to behaviour change or not), many agree that insight accompanied by emotional component is more impactful (Kinney, 2000; Brady, 1967). Gelso and Harbin (2007) proposed the term *integrative insight* to highlight a problem with the distinction between the two types of insight and argued that both components are necessary for therapeutic change to occur. Hence, they suggested that internal conflicts can be addressed and steps towards behaviour change initiated when an individual is able to cognitively appreciate the origin of their conflict and experience accompanying emotion at the same time.

Based on the significance of insight in theoretical literature into psychotherapy, it has been proposed that this construct may reflect a common factor (e.g. Wampold, Imel, Bhati, & Johnson-Jennings, 2006), especially, in the research into psychotherapy change processes dedicated to an exploration of mechanisms via which change in individuals receiving psychotherapy occurs (Elliot, 2010). Insight has also been an integral part of the theoretical models aiming to describe the cause of psychotherapeutic or behavioural change. For instance, the assimilation model (Stiles et al., 1990) hypothesises insight as one of the stages that individuals rely on as they progress towards an improvement in psychotherapy.

The assimilation model suggests that individuals progressively move across developmental stages of change within psychotherapy including: warded off, unwanted thoughts, vague awareness/emergence, problem statement/clarification, understanding/insight, application/working through, problem solution and mastery (Barkham, Stiles, Hardy, & Field, 1996). The patients can enter therapy at any stage on the continuum and progress towards later stages. Supported by research, the model

suggests that well defined and focused (well assimilated) problems would be more conducive with cognitive behavioural approaches, whilst less focused, vague and lacking clear formulation (less well assimilated) problems would be more responsive to psychodynamic, experiential and interpersonal approaches (Stiles, Barkham, Shapiro, & Firth-Cozens, 1992). Therefore, the assimilation model can be a useful guide for a therapist in use of their techniques when helping their patients to progress through the above stages focusing on particular traumatic experiences as opposed to the overall individual change (Stiles, 2002). In this model, insight is defined as the patient's acquisition of understanding and ability to formulate their problematic experiences as well as make clear connective links within that experience. The definition also incorporates an emotional component ranging from pleasant to unpleasant emotional experiences intertwined with curiosity and a possible 'aha' element (Barkham et al., 1996).

An attempt to bring the empirical findings on insight and its relationship to the treatment outcome together is evident in a book chapter by Connolly Gibbons, Crits-Christoph, Barber and Schamberger (2006). Following the review of empirical literature from 1954 to 2003 the authors highlighted methodological and definition problems surrounding the construct of insight; nevertheless, they summarised a small number of promising findings supporting theoretical assumptions and clinical observations that insight gained during therapy may be associated with treatment outcome. Within almost a subsequent decade since the publication of the latest reviewed study in Connolly Gibbons et al., (2006), no literature review and only five additional studies exploring the link between insight and treatment outcome have appeared in the public domain. The current review uses more stringent inclusion criteria (e.g. excludes book chapters) and aims to synthesize and critically evaluate available empirical evidence on the effects of insight acquired during the course of psychotherapy on treatment outcome.

Method

Search Strategy

An extensive literature search was conducted to identify peer reviewed journal articles from January 1954 to January 2012 within CINAHL, Medline, PsycARTICLES and PsycINFO electronic databases. The keywords chosen for the search in the title and abstract fields included *insight, self-awareness* and *self-understanding* combined with *psychodynamic, cognitive* and *experiential psychotherapy* (and derivatives). An exhaustive list of search terms is provided in Figure 1. Additional studies were identified by examining references of relevant articles and the literature review published as a book chapter by Connolly Gibbons et al., (2007).

Selection Process

Inclusion and exclusion of studies. Given the variability in definition of insight throughout the existing literature, a broad definition was used to select studies for this review. Hence, the studies considered suitable were those which explored participant processes of making meaningful links between significant life events. Treatment outcome was defined as a measurable change in symptom severity, adjustment, interpersonal problems and/or dynamic functioning (e.g. tolerance of affects). Studies included in this review met the following criteria: (1) insight was studied within individual or group psychotherapeutic settings; (2) the focus was on working age adults (18-65 years); (3) quantitative research methods were utilised to measure insight; (4) they were published in peer reviewed journals; (5) insight was studied in relation to treatment outcome; (6) they were written in English language. The excluded studies were (1) concerned with insight into mental illness (e.g. psychosis) and (2) utilised qualitative research methods to measure insight.

The titles and abstracts of 791 studies were screened for relevance at the initial stages of the selection process. Following the initial screening 763 studies were excluded on the basis of title. At this stage, in addition to 28 remaining studies, 17 more studies were identified from reviewing the references of the remaining studies. A total number of 45 articles were obtained for full text screening of which fourteen were theoretical discussions, 2 were published in non-English language, 5 focused on therapeutic technique and 4 used a qualitative method resulting in 20 studies meeting the requirements of this review (see Figure 1).

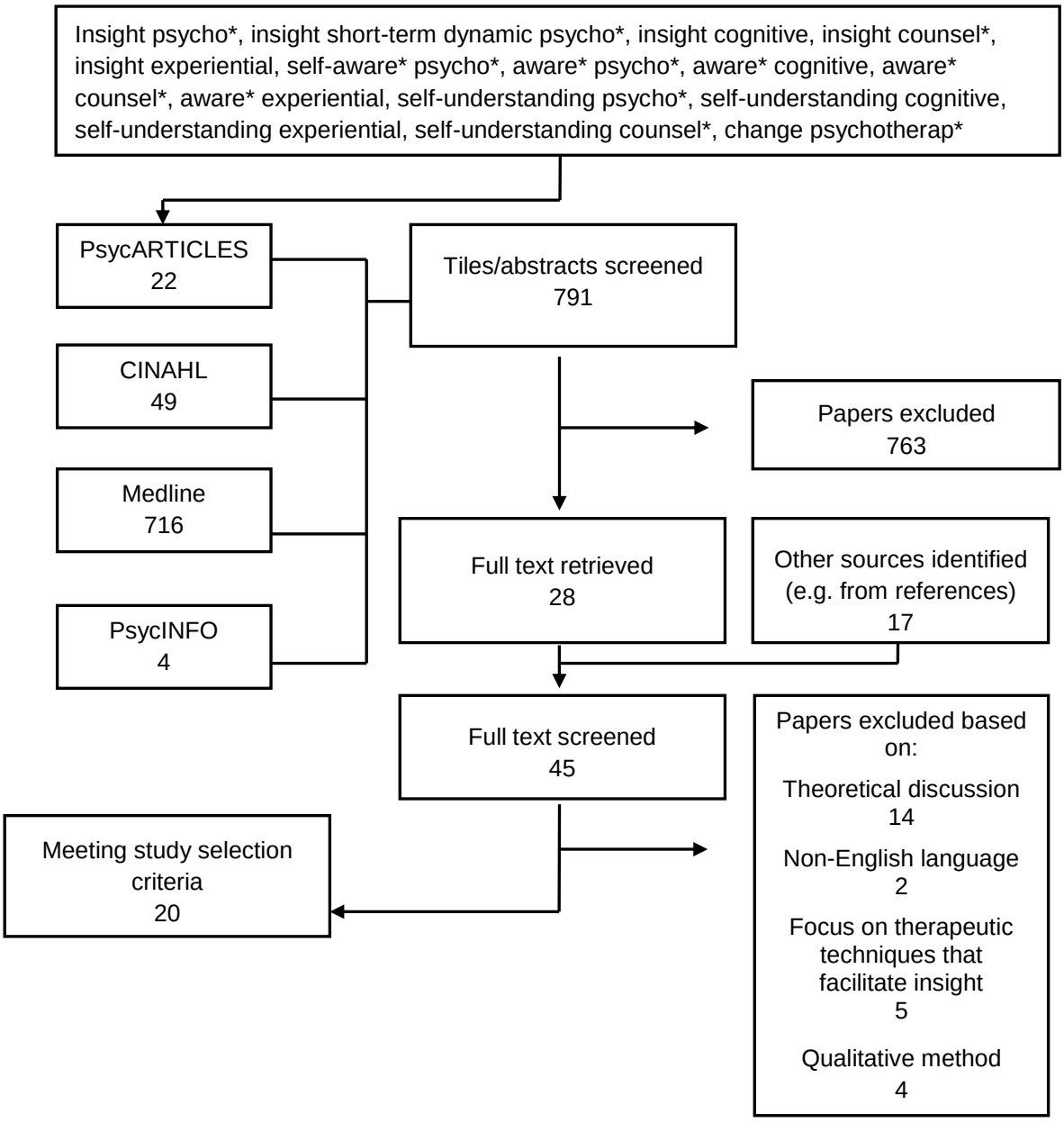

Figure 1 Flow-chart diagram of the search process

Quality appraisal

The aim of exploratory process research is to develop a theory based on available evidence which would facilitate an explanation as to why and how change within psychotherapy occurs (Hill, 1990). Although tools have been developed for the assessment of the psychotherapy process, a tool for the assessment of the quality of the published process studies is still to be developed. For that reason, several frequently cited sources were consulted in order to devise a combined tool for the assessment of the methodological quality of both process and outcome aspects of the studies included in this review.

The focal areas for the evaluation of the process and outcome research were derived from Downs and Black (1998), Fitzpatrick, Davey, Buxton and Jones (1998), Hill, Nut and Jackson (1994) and Salvadori (2010). Given apparent inconsistencies within the literature surrounding a definition of insight, studies were scrutinised for the inclusion of an operational definition. Both process and outcome measures were evaluated for the reliability and validity of the assessment tools used, the number of perspectives utilised to indicate change and the format (e.g. video, audio) by which the data were collected. Video recording psychotherapy sessions lends itself to a comprehensive and more precise examination of the process events, hence, studies were evaluated for an attempt of such scrutiny. Interrater reliability and rater blindness to the aims of a study were assessed as potential sources of bias. Randomisation of the participants and of the data collected was also established. Importantly, ascertaining whether segmentation of the process was conducted helped to determine whether moment-by-moment processes were examined. The follow-up of the outcome was also included as a criterion for the quality appraisal of the studies (see Appendix A).

The developed assessment criteria permitted the assignment of full or partial points ranging from 0 to 1 depending on the requirement of each item. For instance,

items addressing presence or absence of a control group or randomisation were only awarded full (1 point) or no points, whereas items concerned with a number of perspectives or the format used for data collection were awarded full or partial points (0.5 point; see Appendix A). A final score was obtained by summing the scores on each item. The methodological soundness of each study was judged from the number of points achieved in the evaluation process with the soundest studies scoring the highest number of points. A randomly selected 20% of the studies were subjected to a quality assessment by a second rater. The intraclass correlation (ICC) showed high reliability of the quality assessment of the two raters ICC (2,1) = .940 (p = .009, 95%, CI: .352 - .996).

Structure of the review

The studies reviewed are organised into four main sections according to the analytic method used: mediational, correlational, predictive, and other studies. The latter section also includes studies, which had a primary aim other than to investigate the construct of insight as a process variable. The characteristics of the studies and the quality rating score awarded are provided in Table 1.

Table 1

Studies Investigating an Association between Insight and Treatment Outcome

Author (year)	Design	Aim of study	Construct	Main findings	Quality appraisal score
Kallestad et al. (2010)	Part of randomised controlled trial with two conditions: 1. Short-term dynamic psychotherapy 2. Cognitive therapy	To examine development of insight in therapy; and whether insight predicted long terms outcome.	Insight	Insight at the end of treatment was associated with improvement in symptom severity and interpersonal functioning during 2-year follow-up period.	12.5
Johansson et al. (2010)	Randomised clinical trial. Two conditions: 1. Therapy with transference interpretations 2. Therapy without transference interpretation	To test whether insight gained during therapy acts as a mediator for the long terms effects of transference interpretations.	Insight	Better outcomes were achieved by the group that received transference interpretations. Insight gained in treatment mediated long term effects.	12
Diemer et al. (1996)	Compared outcomes of dream interpretation, unstructured sessions and sessions with event interpretations.	a) To determine whether dream interpretation was superior to event interpretation; b) to test for similarities among pre-treatment measures; c) to relate client pre-treatment measure with those of the therapists; d) to relate complexity of client dialogue with sessional outcomes.	Insight	Participant event insight at post-treatment, symptomology and interpersonal functioning improved.	11.5

Kivlighan et al. (2000)	Time series, session by session	To examine relationship between client insight and symptom reduction.	Insight	Increase of insight was associated with decrease in target complaints.	9.5
Connolly Gibbons et al. (2009)	Pooled study database	To examine mechanism of change in psychotherapy across different types of treatment	Self-understanding	Improvement in self-understanding was associated with symptom change across diverse the diverse psychotherapies	9
Høglend et al. (1994)	Correlational study: examined associations between pre-treatment insight and outcome; and gained insight and outcomes.	To assess the role of pre-session insight in predicting early and late drop-outs and change at two and four years after therapy. To examine the role of insight in predicting long-term dynamic change.	Insight	Insight at two-year follow up was strongest predictor of overall dynamic change.	8.5
Gelso et al. (1997)	Time series, session by session	To examine the role of therapist-rated transference and insight in predicting the outcome; compare therapist-rated transference and insight in more and less successful cases	Insight	Interaction between transference and emotional insight was linked to client- and therapist-rated outcome.	8
Levy et al. (2006)	Randomised controlled trial with 3 conditions: 1. Transference focused psychotherapy (TFP) 2. Dialectical behaviour therapy (DBT); 3. Modified supportive psychodynamic therapy (SPT).	To assess changes in attachment organisation and reflective function (RF) as putative mechanisms of change.	Reflective function	Reflective function significantly increased in TFP group.	7.5

Connolly et al. (1999)	Correlational study: examined associations between the Self-Understanding of Interpersonal Patterns (SUIP) measure and measures of symptoms and interpersonal problems.	To evaluate the reliability and validity of a self-report measure.	Self-understanding	Found similar improvement in symptoms in both psychotherapy and pharmacological treatment groups; Found improvement in self-understanding in psychotherapy group.	7
O'Connor et al. (1994)	Case series	To examine the changes in the level of insight and the relationship between the level of insight in psychotherapy and outcome.	Insight	Found a relationship between average level of insight and good outcome; initial insight level decreased during therapy and increased at the end of it.	6.5
Sexton (1993)	Time series, session by session	To explore the relation of process variables to intermediate and overall outcomes of group therapy.	Insight	Insight was not related to the outcome.	6
Slaski and Zylicz (2006)	Quasi experiment with 2 groups: 1. Alcohol-dependent incarcerated males. 2. Alcohol-dependent non-incarcerated males.	To examine whether imprisonment may foster participants' decrease in defensive functioning and increase in self-awareness.	Self-awareness	Incarcerated participant were found to benefit from psychotherapeutic intervention more that non-incarcerated counterparts in terms of increased self-awareness.	5
Paul (1967)	Quasi-experiment with 4 conditions: 1. Modified systematic desensitisation 2. Insight oriented psychotherapy 3. Attention-placebo treatment 4. No treatment	To determine overall effects of different treatments from pre-treatment to 2 year follow-up. To assess stability of outcomes.	Insight	Improvement in client symptoms in insight-oriented psychotherapy group in comparison to controls, but not in comparison to attention placebo condition; greatest improvement in MSD group.	4

Hoffart et al. (2002)	Time series: linked session by session variations in process variables to intersessional distress, and outcomes.	To explore the dispositional and/or episodic influences of self-understanding, guided discovery and convictions about primary maladaptive schema.	Self-understanding	Greater self-understanding in the first session was associated with the decrease in schema belief and distress throughout therapy.	4
Barth et al. (1988)	Multiple source/multiple method	Asses change at the end of short-term dynamic psychotherapy and 1 year and 2 years follow-ups.	Self-understanding	Found the least change in self understanding, although at two year follow-up 70% reported higher than moderate levels of change in self understanding.	4
Høglend et al. (2000)	Factorial analytic study	To test interrater reliability of the dynamic scales, reliability of change ratings, discriminability from global functioning and subjective distress, and sensitivity to change in brief dynamic psychotherapy.	Insight	Found a statistically and clinically significant change in insight measured as one of the dynamic constructs.	4
LaPointe and Crimm (1980)	Comparison of 3 treatment groups: 1. Insight-oriented psychotherapy 2. Assertiveness training 3. Cognitive therapy	To compare the efficacy of insight, cognitive and assertiveness approaches in treatment of depressed women	Insight	Found significantly more gain acquired by assertive and insight groups	4
Mann and Mann (1959)	Compared types of group experience	To investigate effectiveness of discussion, study and role playing group methods on participants' insight.	Insight	Found comparable increase of the levels of insight across all three groups. Found no relationship between insight and individual adjustment.	4

Rosenbaum et al. (1956)	Survey of clinicians	To evaluate the results of the therapy.	Insight	Found no association between pre-treatment insight and improvement in therapy. Found moderate changes in insight levels with therapy.	3
Sexton (1996)	Time series, session by session	To examine change sequences among process measures, intersessional life events and intersessional symptom levels.	Insight	Insight was not directly related to symptom reduction.	3

Results

Mediation studies

The need for studies uncovering underlying mechanisms of psychotherapeutic treatments has been highlighted by researchers as a logical step following an accumulation of substantial evidence for the effectiveness of psychotherapy in the treatment of a number of mental health complaints (e.g., Johansson & Høglend, 2007; Kazdin, 2007). Only one study which explored the role of insight as a mediator in achieving desirable change in psychotherapy using mediation analysis was identified. In their randomised controlled trial (RCT) Johansson et al. (2010) randomly assigned 100 participants with either anxiety, depression, personality disorders or interpersonal difficulties to two groups: dynamic psychotherapy with and without transference interpretations. The participants' insight was assessed pre- and post-treatment and at 1- and 3-year follow-ups using the Psychodynamic Functioning Scales (PFS).

The results indicated that levels of insight increased with the progression of treatment and mediated the relationship between transference interpretations and the outcome, particularly, in participants with poor object relations. The authors concluded that this finding demonstrates the key role of insight as a mechanism of change in dynamic psychotherapy. They also suggested that contrary to traditional clinical understanding of insight-facilitating techniques being especially beneficial to individuals with higher quality object relations, facilitation of insight in the treatment of individuals with personality disorders and relational difficulties can be clinically valuable.

Correlational studies

Five studies investigated an association between the acquisition of insight in therapy and outcome. The highest rated studies in this section were by Kivlighan, Multon and Patton (2000), Diemer, Lobell, Vivino and Hill (1996) and Høglend et al. (1994). Independent judges rated insight in all three studies; however, all studies were small, with participant numbers ranging from 12 to 43 individuals. Only one study (Kivlighan et al., 2000) used video recordings of the sessions in the process of rating the insight. The other two studies relied on transcripts of the audio recordings of the sessions (Diemer et al., 1996) and transcripts of clinical interviews at pre-treatment and the follow-ups (Høglend et al., 1994). The latter studies evaluated insight using participant-rated (Diemer et al., 1996; Høglend et al., 1994) and therapist-rated tools (Diemer et al., 1996). Diemer et al. (1996) and Høglend et al. (1994) measured the outcomes by assessing participants' symptom change, whereas Kivlighan et al., (2000) evaluated target complaints to measure the treatment outcome. Diemer et al. (1996) also measured change in interpersonal functioning.

All three studies reported comparable results. Kivlighan et al. (2010) found the decrease in participant target complaint distress was found to be associated with an increase in insight. The inverted relationship was also reported: the less insight was judged by the raters the more distress was reported by the participants over the following week. The findings by Høglend et al. (1994) showed that the level of insight prior to treatment was not directly correlated with the treatment outcome as measured by the Global Assessment Scale; significant correlations were found only in interaction with treatment length for patients with low to moderate levels of insight (Høglend et al., 1994). Similarly, the results by Diemer et al., (1996) showed significant improvements in participants' event insight as well as their symptoms and

interpersonal functioning; however, no further analyses were completed on the association between insight and symptom reduction. Additional analyses performed by Høglend et al. (1994) showed that insight evaluated at two-year follow-up was the strongest predictor of dynamic but not symptom change including interpersonal functioning and self-esteem at a four-year follow-up. The findings indicate that, potentially, additional patient or treatment variables may be linked to the outcome.

Contrary findings were reported by two studies (Connolly et al., 1999; Rosenbaum, Friedlander, & Kaplan, 1956). To evaluate the reliability and validity of the newly developed Self-understanding of Interpersonal Patterns (SUIP) self-report measure, Connolly et al. (1999) conducted a study using a clinical sample of 86 individuals with anxiety disorders. The researchers operationalised the definition of self-understanding as the "understanding of maladaptive interpersonal patterns" (p. 473), which can be considered on a continuum of minimal and deeper understanding (e.g. understanding interpersonal origins of maladaptive patterns). A global measure of insight was taken by administering the SUIP at pre-and post-treatment. Despite a significantly larger change in self-understanding observed in the psychotherapy group, no difference in anxiety symptom change was found between the dynamic psychotherapy and medication groups.

Connolly et al. (1999) also reported preliminary mediation results using a correlational design. This study, in contrast to Johansson et al. (2010), found no significant association between residual change in self-understanding and residual change in participants' symptoms. However, Johansson et al. (2010) aimed to investigate the mediating role of insight, whilst Connolly et al. (1999) sought to study preliminary correlational data of self-understanding as a putative mediator within a larger study aiming to evaluate reliability and validity of the SUIP

instrument. Hence, Johansson et al. (2010) study, as well as being an RCT, was designed to meet the specific criteria for meditation studies therefore its findings can be considered as more robust.

Rosenbaum, Friedlander and Kaplan (1956) evaluated insight retrospectively as part of the analytically oriented psychotherapy evaluation process in a department of psychiatry. Moderate changes in insight with the progression of therapy were found, whilst no association of insight with improvement with treatment were established. This study, however, obtained one of the lowest quality ratings (see Appendix B) mainly due to it being retrospective, having used no process measures and having relied only on individual therapist's ratings on an evaluation form.

Predictive studies

Eight studies used predictive methods to investigate the effects of insight acquisition in therapy on treatment outcome. Kallestad et al. (2010) investigated the relationship between insight acquired in psychotherapy and long term outcomes in Cognitive Therapy (CT) and ISTDP for cluster C personality disorders. They used the ATOS definition of insight: "The verbal fullness of patient's ability to recognise (1) maladaptive behaviours cognitions and schemas; (2) how, why and with whom these patterns developed; and (3) how, why and with whom they are currently being enacted" (p. 3). Analysis of video recording of early and late sessions showed a significant increase in insight in the ISTDP group but not in the CT group. In contrast to Hoffart el a. (2002), insight acquired late not early in therapy, predicted improvement in symptoms and interpersonal functioning with participants reporting significant gains on Global Severity Index (GSI), Symptom Checklist-90-Revised (SCR-90-R) and Inventory of Interpersonal Problems (IIP) at 2 years follow-up.

Although this was a small study (N = 46), a micro-analytic approach taken to investigate the process variable of insight was considered to be a particular strength of this study, which also in part, determined its highest rating in this review. Studying only early and late sessions, however, limited the findings with regards to excluding insight occurring at other points of psychotherapy and its relationship (or a relationship of the trajectory of insight) to treatment outcome.

The findings by Gelso et al. (1997) and Connolly Gibbons et al. (2009) are particularly interesting in terms of putative indirect effects of insight on treatment outcome. Connolly Gibbons et al. (2009) used a pooled study database in order to explore mechanisms of change in a sample of 184 patients with a wide range of complaints. The study investigated a construct of self-understanding as defined by the Self-Understanding of Interpersonal Patterns Scale–Revised (SUIP-R): "patients' level of self- understanding of their own unique impairing relationship conflicts" (p. 804). Gelso et al. (1997), however, provided definitions of both intellectual and emotional insight. The former was described as reflective of the cognitive links the patients might be making between events (cause and effect) during the sessions, whilst the latter was indicated if the patient made emotional connections to the developed cognitive understanding. The study aimed to evaluate fluctuation in transference and insight, as measured by Relationship Questionnaire (RQ), in more and less successful psychotherapies in a sample of 33 participants with primarily interpersonal difficulties.

The findings of both studies showed that insight and self understanding predicted treatment outcome. However, further analyses in Connolly Gibbons et al. (2009) indicated that, when other predictors of change (compensatory skills and self-concept) were controlled, self-understanding was not a significant mechanism of

therapeutic change. One explanation suggested by the others was that of possible mediation effects occurring between insight and change in depression and perceived quality of life (Connolly Gibbons et al., 2009). Likewise, the findings by Gelso et al. (1997) indicated that an interaction between transference and emotional insight predicted patient- and therapist-rated outcomes as measured by the Counselling Outcome Measure (COM), whilst none of these process variables in isolation were associated with the treatment outcome. It is important to note that the outcome was affected by emotional insight, integrating both intellectual and emotional parts of self-understanding.

The primary aim of the study by Levy et al. (2006) was to explore the mechanisms of change in individuals with borderline personality disorder within the context of attachment organisation. In this RCT, three types of therapy including transference focused psychotherapy (TFP), dialectical behavioural therapy (DBT) and psychodynamic supportive psychotherapy (SPT) were compared. The findings indicated that using TFP, participants' reflective capacity, or quality of mentalisation, increased as measured by reflective capacity coding scale. Mentalisation was described as "the capacity to evoke and reflect on one's own experience to make inferences about behaviour in oneself and others" (p. 1029). Other assessment instruments used in this study were the Adult Attachment Interview (AAI) and diagnostic measures for borderline personality disorder. In spite of desired changes in participant's reflective capacity within the TFP group, no associated resolution of loss or trauma was observed across the treatments. The participant variables in this study were assessed only on two occasions (pre- and post-treatment) which, collectively with an overall lack of measures used, limits the findings in relation to the links between the mechanisms of change and the outcome.

O'Connor, Edelstein, Berry and Weiss (1994) conducted a pilot study to explore changes in the patterns of insight over the course of therapy and its relationship to outcome. Individual ratings were given to the clients' insight using the proplan rating scale in line with the Weiss' Control-Mastery theory. Insight was rated by independent raters who received insight statements identified by the judges using session transcripts and presented to the raters in random order. Insight in this study was defined as "awareness into the meaning of thoughts, feelings, and/or behaviour that will help the patient to progress toward their goal as defined by the plan formulation" (p. 538). In order to measure insight the raters used the Pro-plan Insight Rating Scale (PIRS). This small study found that insight followed a pattern of a decrease in initially demonstrated insight and an increase in insight towards the end of the sixteen session therapy. The average levels of insight (mean insight) were found to be related to improvements in participant symptom distress.

Contrary findings were reported in two studies by Sexton (1993) and Sexton (1996) that used a time series approach. Sexton (1996) explored the relationship between the intersessional processes including insight, life events and intermediate outcomes in a sample of 32 participants with predominantly anxiety and depressive disorders. Video recordings of the sessions were used to evaluate intrasessional processes. Sexton (1993) explored a progression of change among process variables, intersessional life events and symptom levels in a sample of 34 highly symptomatic outpatients in multimodal group therapy. The construct of insight in this study was a composite of two items: session importance and new understanding derived from factorial analysis of the 16-item patient variable scales (e.g. feeling understood, gaining new understanding). The findings of both studies indicated no association between insight and intermediate or overall outcomes of either of the treatments as

measured by symptom anxiety, depression and adjustment tools (Sexton, 1993; Sexton, 1996). Instead insight was reported to develop as a parallel to the symptom reduction process (Sexton, 1996) and therefore suggested to have a function of solidifying symptom improvement.

In terms of the stage of therapy when insight is acquired, Hoffart, Versland and Sexton (2002) found a link between early insight and the outcome. Using the growth curve and time series analysis, the influence of self-understanding and other process variables on primary early maladaptive schema in individuals with personality difficulties was investigated. The participants received agoraphobia and personality focused group treatment and rated their self-understanding by answering the question: "To what extent did you find promising new ways to see your difficulties?" (p. 205). Self-understanding emerging early in therapy was found to be associated with decreases in post-sessional schema belief and distress as measured by post-sessional emotional ratings on pre- and post-sessional impact questionnaires. Only participant self-reports were used to collect self-understanding data, which is one of the limitations of this study. Although a part of the sessions was video recorded, video recordings were not used to investigate participant process variables.

Other studies

Two studies reported outcome related findings of insight oriented psychotherapy by exploring insight indirectly. In a two year follow-up study Paul (1967) evaluated three student groups having undergone individual intervention for performance anxiety including modified systematic desensitization, insight oriented psychotherapy, attention placebo and no treatment controls (N = 79). Similarly, LaPointe and Crimm (1980) compared the effects of cognitive, insight and

assertiveness oriented group therapies for depressed women (N = *33*). Although the findings in Paul (1967) indicated the greatest improvement in anxiety was in the systematic desensitization group (85% rate), it was followed by the insight oriented psychotherapy group (50% rate). The findings in LaPointe and Crimm (1980) study indicated that participants in insight and assertiveness groups made significant gains in relation to self-acceptance, rationality and assertiveness. Significant reduction in depression was found across all three groups at the end of the treatment; however, at follow-up the insight oriented group reported more improvement in the areas of coping, affect, relationships and self. These findings may be indicative of lasting benefits resulting from the acquisition of insight in therapy which can be utilised as a skill for greater self-understanding, hence, corrective action and consequent improvement in functioning outside of the therapeutic setting. Both studies, however, scored low on their quality assessment mainly due to the lack of direct attempts to measure the relationship between insight and treatment outcome.

Similarly, Slaski and Zylicz (2006) monitored changes in self-awareness in group psychotherapy for incarcerated and non-incarcerated alcohol dependent individuals based on Alcoholics Anonymous principles. Greater increase in self-awareness was reported in incarcerated individuals as well as a higher percentage of sobriety over a one year period. However, the relationship between self-awareness and sobriety was not explored directly. It is noteworthy that, in the context of incarceration and limited access to alcohol, the differences between groups could be considered as negligible and requiring testing under similar circumstances. This study was evaluated as methodologically weak and only marginally contributing to the evidence of how insight might be associated with outcome.

Two studies investigated the construct of insight and self-understanding as an outcome variable. Høglend et al. (2000) evaluated five scales developed to assess change in dynamic psychotherapy and found insight to be one of the two areas (the second was tolerance of affects) within which the largest amount of change was observed as reflected by the reliable change index. Similarly, Barth et al. (1988) found an increase in insight after the termination of psychodynamic treatment. Contrary to Høglend et al. (2000), the least amount of change was observed in self-understanding at the end of treatment; however, at two year follow-up 70% of participants reported higher than moderate changes in their self-understanding, indicative of a lasting nature of acquisition of insight in therapy.

Finally, in a brief report by Mann and Mann (1956) changes in insight were assessed across three groups of graduate students: discussion, role play and study. All group members across all three groups reported an increase in insight over the three week group experiences. However, the amount of acquired insight and individual adjustment were found to be unrelated in this study.

Discussion

The aim of this literature review was to synthesize and critically evaluate available empirical evidence into the effects of insight acquired during the course of psychotherapy on treatment outcome. Studies that utilised mediational, correlational, predictive and other methods were reviewed. Considerable variation in the quality of research designs and the detail in which the construct of insight was explored was noted across the studies. The findings of this review tentatively suggest a possible association between insight and desirable treatment outcome.

Problems in defining insight

Given the pivotal role of insight in psychotherapy, a lack of attention paid to the definition of insight across the studies was particularly surprising. This finding is not novel. Several researchers and theoreticians emphasised the lack of a clear definition of insight several decades ago and more recently (e.g., Brady, 1967; Connolly Gibbons et al., 2006; Miller, 1992). Although 15 out of the 20 studies in this review attempted to provide an operational definition of insight or self-understanding, the variation between the definitions is striking. Some studies defined insight in dynamic terms i.e. participants' ability to recognise such intrapsychic process as wish, anxiety and defence (e.g., Høglend et al, 1994); some included participants' ability to recognise maladaptive patterns and link these to historical events (e.g., Kallestad et al., 2010); others relied on participants' reports of being able to see their difficulties from new perspectives (e.g. Hoffart et al., 2002); whilst only a minority of the studies made a distinction between the emotional and intellectual components of insight (e.g. Gelso et al., 1997). The majority of the studies however, agreed that insight encompassed participants' understanding of their current difficulties and their development in relation to significant others.

The lack of consistency in the definition of insight can be considered as one of the fundamental flaws of the research into this subject, which might be partially responsible for a paucity of consistent findings. For instance, some data showed that not only an intellectual component of insight but both emotional and intellectual components might be associated with treatment outcome (Gelso et al, 1997); hence, the composite aspects of the construct of insight have a particular relevance to the interpretation of findings and their generalisation across the treatments.

Timing and trajectory of insight

The importance of the time when insight occurs during the course of therapy in relation to treatment outcome appears to be supported by some of the recent evidence. Kallestad et al. (2010) demonstrated participant insight, which occurred late in therapy (late insight) predicted a desirable outcome in terms of symptom severity and interpersonal functioning. These findings are consistent with the theory that in order to achieve improvement in therapy, acquisition of insight is an important prerequisite (Messer & McWilliams, 2006). Such theoretical supposition implies that insight develops over the course of therapy and occurs prior to therapeutic change. Some support for such theory was also offered by Johansson et al. (2010) and their findings that, specifically, an increase in the level of insight mediated the relationship between transference interpretations and desirable outcome. On the contrary, Hoffart et al. (2002) reported that the occurrence of insight early in therapy (early insight) was also associated with positive post-sessional gains. While some data show that individuals gain insight gradually over the course of therapy (e.g., Kallestad et al., 2010), further findings point to a trajectory whereby insight occurs in a high-low-high pattern and positively affects treatment outcome (O'Connor et al., 1994). The high-low-high trajectory of insight may partially explain the contrasting findings in relation to late or early insight being associated with desirable outcome. Although, based on these preliminary results, confident conclusions whether early or late (or both) insight is linked to treatment outcome cannot be drawn, the evidence from the RCTs conducted by Johansson et al. (2010) and Kallestad et al. (2010), which indicates a gradual increase in insight is promising.

The relationship between insight and treatment outcome

The findings of the role of insight in psychotherapy in relation to treatment outcome are largely inconsistent and permit only tentative conclusions on the subject matter. Nonetheless, the data from the studies with stronger methodologies are particularly interesting in terms of showing some evidence consistent with theoretical propositions that in order for therapeutic gains to take place, prior development of insight is important. The most convincing evidence for the association between insight and treatment outcome comes from the studies which adequately operationalised the definition of insight and those that used multiple perspectives to evaluate the construct. The findings from these studies suggest that increased insight has a desirable effect on reduction in patient target complaints and symptoms (e.g., Diemer et al., 1996; Kivlighan et al., 2000), and dynamic change reflected in interpersonal functioning (Høglend et al., 1994). Kazdin (2007) argues that studying mediators is a first step towards understanding mechanisms of change. Hence, the findings suggesting that insight might function as a mediator (Johansson et al., 2010) expand the territory for further research into insight and the ways it is potentially related to treatment outcome.

Therapeutic modalities and research into insight

Interestingly, the results of this review indicate that the construct of insight continues to ignite more interest within psychodynamically oriented schools of therapy than within other psychotherapeutic approaches. The current review noted that out of 20 studies, 16 investigated insight within some form of psychodynamic psychotherapy whilst only four studies were interested in insight within some form of cognitive psychotherapy and the other two used eclectic group approaches.

Although, theoretically, insight has been considered as one of the central variables within the process of change across therapeutic schools (Ellis, 1963; Messer & McWilliams, 2006; Pascual-Leone & Greenberg, 2006), this does not seem to be proportionately reflected in the research. In that sense, the research into insight is not balanced and calls for contributions from diverse psychotherapeutic schools.

Research designs used

Pertaining to methodological approaches, considerable variation in the quality of research designs across the studies was apparent. For example, only a minority of the studies explored insight on a moment-by-moment basis, whilst others relied on sessional or pre- and post-treatment data; this latter trend was also noted by Hill et al. (1994). Existing research shows that global (pre- and post-treatment) and molecular (moment-by-moment) measures can yield diverse results, therefore comparison of the findings can be rather difficult (Heaton, Hill, & Edwards, 1995). Only three studies in this review used video recordings of the psychotherapy sessions and only seven studies used independent raters who scored transcripts, audio recordings or video recordings of the sessions. This indicates that the majority of the studies relied on subjectively reported data by the therapists or participants and half of the studies relied on only one perspective, mainly, that of the participants or the therapists, failing to eliminate the potential sources of bias in their results. The research into diverse approaches to measurement indicates that different perspectives may determine different results (e.g., Kurtz & Grummon, 1972); therefore caution should be taken when generalising the results beyond the perspectives elicited (Hill et al., 1994). The variation in methodological approaches, has also been associated with the difficulties in devising and applying the studies' quality appraisal check-list in terms of its responsiveness across the studies. Therefore, caution should be taken

when considering the quality scores. Finally, the findings of this review need to be considered within the methodological limitations including a longstanding and overarching problem of a lack of a definition of insight.

Analytic approaches used

Characteristic strengths and limitations can be noted within each group of studies reviewed. Mediational research investigated the role of insight as a mediator between the therapeutic technique of transference interpretation and treatment outcome. The data obtained using this analytical method contributed to preliminary evidence that insight changed prior to the occurrence of therapeutic change. However, one of the limitations pertinent to the mediational studies is a difficulty in experimentally controlling the association between the mediator and outcome, hence, additional variables associated with the mediator (insight) may confound the results (Johansson et al., 2010).

A better understanding of the link between insight and treatment outcome was offered by the correlational studies. Limitations of these studies, however, were associated with the diverse outcome domains assessed across the studies (e.g. interpersonal functioning, symptoms, and target complaints) and the varying times following treatment before the outcomes were measured (immediately after the treatment or at a long-term follow-up). Finally, due to the nature of correlational designs causal inferences cannot be made.

Predictive studies in the current review investigated interactions between insight, outcome and other variables. These studies were characterised by relatively strong methodological designs. Limitations of the predictive studies arose from a large variation in insight measurement methods, which rendered comparison

between the studies difficult. Nevertheless, these studies revealed the complexities inherent within the association between insight and treatment outcome and highlighted the need for process research designs that would adequately capture psychotherapeutic microprocesses.

Some of the studies that used other analytic methods such as descriptive, factor analysis, and analysis of variance evaluated insight in relation to outcome indirectly whilst others treated insight as both a process and an outcome variable. Comparisons between these studies are difficult to infer, however, their contribution to the overall findings of this review is complementary in terms of highlighting insight as a variable which changes over time and its putative association to treatment outcome.

Clinical implications

The evidence that would explain the role of insight in the process of psychotherapy is not yet satisfactory. However, based on the available evidence, particularly the recent findings, several recommendations can be made. Acquisition of insight is a gradual process in therapy and clinicians should consider how they could facilitate their clients' understanding of the links between the past events and their current difficulties. Both emotional and cognitive components of insight are important to consider during the course of therapy. Therefore, clinicians should encourage their clients to not only make cognitive links between past events and their current difficulties but also help the clients to experience associated emotions. Finally, based on the emerging evidence that insight, which occurs late in treatment,

might be associated with desirable outcome, clinicians should consider how insight could be consolidated with the progression of psychotherapy.

Recommendations for further research

The empirical literature on the role of insight in psychotherapy and its implications for treatment outcome is insufficient and problematic. As additional studies are conducted, the issue around the unclear definition of insight should be considered of foremost importance. Failure to operationalise the definition of insight risks locking the research of the construct into a vicious cycle whereby findings of the studies with an inadequate, inconsistent or even absent definition of insight will be hard to replicate, the results will remain ambiguous and difficult to generalise, and integrate into clinical methods. Therefore, research that targets insight around specific therapeutic objectives, which could be integrated within different therapeutic models is needed.

Investigating insight as a possible mediator in the process of therapeutic change could be a valuable contribution to the research into the mechanisms of change given preliminary evidence that insight functions as a mediator between transference interpretations and outcome (Johansson et al., 2010). Given the call from researchers for further work into advancing our knowledge of the therapeutic endeavour and optimising treatment benefits (Kazdin, 2007), insight appears a credible and valid candidate to consider. Limited data exist into the association of insight with treatment outcome in conjunction with other variables. Therefore, further research should focus on the relationships where association has already been established. For instance, recent findings suggest that affect experiencing in therapy is associated with therapeutic outcome (Watson and Bedard, 2006). Other findings

indicate that insight can also be linked to the therapeutic outcome (Kallestad et al., 2010). Further research should build on these findings to establish clearer connections among the hypothesised variables.

A consideration of better research designs is necessary as additional research is conducted. For example, measuring insight on a moment-by-moment basis can yield more precise and directly observable data than measurement of the construct pre- and post treatment (molecular vs. global measures). The researchers should also consider methods of data collection (channel of input): for example video recording sessions would provide rich factual data whilst conducting interviews relies on retrospective considerations. The number of perspectives used is also essential in process research as generalisability and validity of the findings produced increases with the number of perspectives used (Hill et al., 1994). Insight is a dynamic factor (Høglend et al, 2000); therefore, changes in insight throughout the therapeutic process can provide valuable information in terms of an association with immediate and overall treatment outcomes. Exploring the effects of fluctuations in insight could have further implications in terms of techniques used by therapists to facilitate an improvement in patient functioning, which can generate a new area for further empirical investigations. Furthermore, the absence of any form of factual recording eliminates the possibility for independent judges to assess insight leaving the study open to researcher, therapist or participant bias. One of the limitations of this review is the exclusion of qualitative studies; therefore, further research should consider qualitative data in order to deepen our understanding of insight and its association with treatment outcome and to generate new relevant research questions. Future studies should consider more vigorous and reliable methodologies in the study of insight and its relationship to treatment outcome.

Conclusion

The current empirical evidence for the role of insight in psychotherapy and its association with treatment outcome has been appraised by critically reviewing meditational, correlational, predictive and other studies. The present evidence suggests that insight is an active variable in the process of change; however, the ways it functions to affect the outcome are yet to be explored. On the basis of available data only tentative conclusions can be drawn with regards to the specific role of insight in relation to psychotherapeutic outcome. Furthermore, the current findings seem to have been developed within a context where a clear definition of the construct of insight is absent leading to numerous related problems. Difficulties are also evident in the methodological domain primarily in relation to the ways in which insight is measured. The emergence of meditational research and the studies that measure insight on a moment-by-moment basis demonstrate promising results. Hence, further research should focus on meditational methods of analysing moment-by-moment insight data paying particular attention to a number of perspectives used to measure the construct.

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Section 2

Research Report

Does Patient Insight into Defensive Functioning Mediate the Relationship between Affect Experiencing and Outcome in Intensive Short-term Dynamic Psychotherapy?

Abstract

Objectives. The present study sought to investigate insight as a putative mediating variable between affect experiencing and treatment outcome. The current study also aimed to examine a relationship between increase in affect and an increase in insight over the course of psychotherapy.

Design. A single case series design was used.

Methods. The affect experiencing and session-by-session treatment outcome data of four participants with common mental health difficulties from the data archive of the prior unpublished thesis was used. Additionally, the insight data was collected by coding the video recordings of the sessions of the same participants, who underwent 20 sessions of Intensive Short-term Dynamic Psychotherapy (ISTDP). A total number of 78 sessions were coded. For this study two participants who had recovered and two participants who achieved no change during the course of ISTDP were selected in order to offer variation in treatment outcome.

Results. The participants did not show greater levels of insight following the segments of therapy where they demonstrated higher degrees of affect experiencing. The mediating role of post-peak affect insight between affect experiencing and treatment outcome was not established. However, within the limitation of the present study, insight and affect experiencing emerged as possible independent predictors of self-reported treatment outcome.

Conclusions. The findings offer a tentative support for one of the treatment goals in ISTDP: to increase patient understanding of their defensive functioning – a prerequisite for successful continuation of treatment. Replication of these findings and further investigation of indirect effects of insight on treatment outcome in the larger studies are warranted.

Dating back to the early 1970s, with the aim to help individuals to achieve enduring change within a short period of time, the development of Short-term Psychodynamic Psychotherapy (STPP) began with the work of its main proponents including Sifneos (1972), Davanloo (1978), Malan (1976) and Mann (1973). The majority of the variants of STPP are guided by the triangle of conflict (Ezriel, 1952) and the triangle of person (Menninger, 1958) and share such common features as an evaluation of patient suitability for treatment, active therapist role, therapeutic focus, the use of transference (therapeutic) relationship and a limit applied to the number of psychotherapy sessions (Davanloo, 1980).

An increasing number of studies have found STPPs to be an effective treatment for a wide spectrum of mental health difficulties. For example, the early meta-analyses conducted on a total number of 37 studies by Anderson and Lambert (1995) and Crits-Christoph (1992) found the efficacy of STPP to be similar to that of other psychotherapies and superior to minimal treatment and waiting list controls. In their meta-analysis, Leichsenring, Rabung, & Leibing (2004) obtained similar results from 17 studies reporting the effectiveness of STPP as equal to CBT across a wide range of psychiatric conditions including depression, post-traumatic stress disorder,

eating disorders, cluster C personality disorders, borderline personality disorder, social phobia, substance dependencies and somatoform pain disorders.

A Cochrane review carried out by Abbass, Hancock, Henderson, & Kisely (2006) on 23 randomised controlled trials, found STPP to be effective in the reduction of depressive, anxious, somatic and social adjustment symptoms. The review found it to be superior as compared to no treatment and minimal treatment controls.

Intensive Short-term Dynamic Psychotherapy (ISTDP) is a specific STPP variant that describes the importance of the therapist challenging unconscious resistance and exerting pressure in order to facilitate the patients' experiences of true feelings. A recent systematic review and meta-analysis of the effectiveness of ISTDP by Abbass, Town and Driessen (2012) reported encouraging findings. The results from 21 controlled and uncontrolled ISTDP outcome studies across client groups with mood, anxiety, depression, personality and somatic disorders yielded large pre- and post-treatment effect sizes (e.g., up to 1.51 with depressed samples). Additionally, the follow up findings indicated that ISTDP was significantly more successful than control treatments in producing long term gains (Abbass et al., 2012). Although the emerging evidence of the effectiveness of ISTDP is promising, investigation into which mechanisms contribute to the process of change is still limited.

It has now been widely recognised that psychotherapy outcome research has contributed to a significant pool of evidence supporting the effectiveness of the diverse psychotherapeutic modalities in alleviating patient distress across cognitive, social, emotional, interpersonal, behavioural and physical areas of functioning (Kazdin, 2007). Given substantial evidence in support of various forms of psychotherapy, the question of what makes them work remains unanswered

(Johansson & Høglend, 2007; Kazdin, 2007). The lack of evidence for the superiority of some psychotherapeutic treatments over others may suggest that common mechanisms of change operate in the therapeutic process. Therapeutic alliance has been one of the common factors researched extensively to date (Martin, Garske, & Davis, 2000). It is also noteworthy that not all individuals benefit from psychotherapy, or benefit at varied degrees. Therefore, studying mechanisms of change, particularly, mediators can bring us closer to the understanding of what determines varied responses to therapy (Johansson & Høglend, 2007), help us optimise available treatments, and, as a result, improve overall patient care.

Kazdin (2007) discerned six reasons why it is important to study mediators and mechanisms of change: (1) to create an order and parsimony within an immense variety of currently available treatments; (2) to clarify the links between diverse effects of psychotherapy (e.g. psychological and physical); (3) to improve and optimise outcomes; (4) to facilitate the usage of research findings within clinical settings; (5) to help identify moderators of treatment; (6) to add to the understanding of human functioning beyond the context of psychotherapy.

Insight

Theoretical assumptions of ISTDP postulate that therapeutic change or reduction in symptoms can be achieved through addressing repressed unconscious emotions related to trauma or loss (Abbass, 2005; Driessen et al., 2010). The feelings that are conflicted or frightening to a patient generate anxiety and defense mechanisms that help regulate the anxiety (Abbass, 2008). In order for a patient to experience their true feelings, defence mechanisms or, otherwise, maladaptive patterns of functioning (e.g. helplessness, pleasing, acting out) have to be relinquished. This becomes possible once defensive processes are challenged,

recognized and, eventually, abandoned by the client (Davanloo, 2001). Hence, the theory of ISTDP implies that in order to achieve symptom alleviation, a patient has to experience their warded off feelings. In order to do so, the patient needs to relinquish their maladaptive defences. Finally, in order for the patient to be able to relinquish their defences, they need to gain insight into and understanding of the self-defeating function of the defensive repertoire they have unknowingly employed in order to avoid experiencing conflicted and frightening emotions.

Although insight has been considered necessary for change to occur in psychotherapy (Connolly Gibbons et al., 2009) the evidence to support this relationship is limited. Results from the studies that examined the relationship between insight and outcome are inconsistent with only some studies having shown a significant positive relationship between these two variables (Kallestad et al., 2010; Johansson et al., 2010). Problems with methodology, patient characteristics, types of treatment and short follow-up periods have been identified (Kallestad et al., 2010). Furthermore, the concept of insight in the empirical literature was used to refer to a number of related constructs reflecting a lack of explicit definitions of insight and compromising the reliability of its measurement (Connolly Gibbons et al., 2009).

Theory and practice of STPP identifies insight as one of the important change mechanisms and therapeutic objectives (McCullough et al., 2003). It can be measured using the Defense Recognition Scale – Insight (DRS-I), which is one of the seven subscales in the Achievement of Therapeutic Objectives Scale (ATOS; McCullough et al., 2008). The DRS-I aims to assess an individual's ability to see their defensive patterns and defines insight as (1) the degree of clarity and fullness of verbal descriptions of maladaptive cognitive, emotional and/or behavioural patterns; (2) the degree of ability to state reasons, ways and with whom maladaptive/defensive

patterns developed and are currently maintained including secondary gain (McCullough et al., 2003). Helping individuals to recognize their defensive behaviour is one of the treatment goals in STPP (McCullough et al., 2003), which has also been postulated as one of the common change factors across therapeutic modalities (Vargas, 1954; Messer & McWilliams, 2007; Pascual-Leone and Greenberg, 2007; Holtforth et al., 2007; Ellis, 1963). The current study defines insight as suggested by the DRS-I subscale of the ATOS.

Emotional experiencing

Further evidence has consistently shown that affect experiencing within a variety of psychotherapeutic models, is associated with therapeutic outcome (Greenberg & Paivio, 1997; Greenberg & Pascual-Leone, 2006; Whelton, 2004). In their meta-analysis Diener, Hilsenroth, and Weinberg (2007) demonstrated that emotional experiencing facilitated by the therapist in psychodynamic psychotherapy was associated with outcome improvement over the course of therapy. In the review of the process research across humanistic, cognitive, behavioural and psychodynamic modalities, Whelton (2004) highlighted that emotional arousal and expression in psychotherapy is linked to constructive change.

A recent case series study by Salvadori (2010) investigated the nature of association between affect experiencing and inhibition, with symptom distress in six participants who received 20 session of ISTDP. Two participants who achieved clinically and statistically significant change as indicted by the Reliable Change Index (RCI; Jacobson & Truax, 1991) on the Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 1996), the Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM; CORE System Group, 1998) and the Inventory of

Interpersonal Problems - Short Circumplex Form (IIP-SC; Soldz, Budman, Demby, & Merry, 1995) were described as recovered. The other two participants who achieved clinically and statistically significant change only on the BDI-II and CORE-OM were described as improved. The results of two more participants yielded no significant change on the measures used.

Salvadori (2010) found that both recovered participants and one participant, who showed no change on the outcome measures, demonstrated significant increases in affective capacity during the course of treatment. One participant, who was classed as improved, showed an increase in affect experiencing over the course of psychotherapy but no improvement in inhibition (Salvadori, 2010). Their affective capacity was determined by obtaining the ratio of affect experiencing to degree of inhibition, both measured on the ATOS scale. The scale defines affect experiencing as a degree of emotional arousal, its duration and the relief in the experience of the feeling; and the degree of inhibition as the intensity of observable anxiety, guilt, shame, and pain reflected in vocal, verbal and non-verbal behaviours (McCullough et al., 2003).

The findings from Salvadori (2010) study showed that, in line with the theoretical propositions of ISTDP, emotional experiencing in psychotherapy was associated with desirable treatment outcome. However, the data showing that improvement in affective capacity was also noted in a participant who did not recover suggests that additional process variables may be involved in the relationship between affective capacity and treatment outcome. The data from recent randomised controlled trials (RCTs) suggests that insight acquired in psychotherapy may function as a predictor of reduction in participant symptom distress (Kallestad et al.,

2010) and as a mediator between transference interpretations and long-term improvement in interpersonal functioning (Johansson et al., 2010).

Based on the findings by Salvadori (2010), which found an association between increased affective capacity and a better outcome, a study extension is warranted to examine the role of insight as a mediator between affect experiencing and outcome. Building upon the findings by Salvadori (2010), in addition to newly collected data, the present study utilizes the Salvadori (2010) data archive of previously coded process- and participant- reported data from the same sample as in the original study. Full list of measures and their psychometric properties are reported in Salvadori (2010).

Research Aims and Hypotheses

The current study aims to examine the relationship between patient insight into their defensive functioning gained following in-session affect experiencing and outcome as measured one week later. The proposed study hypothesises that:

- Participants will show greater levels of insight following segments of therapy where they demonstrate higher degrees of affect experiencing.
- Insight will function as a mediator in the relationship between in-session peak affect experiencing and sessional outcome.

Method

Design

In order to examine participant process variables an events paradigm was used in this study. This approach deliberates on the change process of specific types of events within therapy (Hill, 1990). A single case series was used to carry out an

intensive analysis of client performance; such methodology permits a detailed examination of the therapeutic micro-processes by studying therapeutic events of individual participants and sidestepping the intersubject variability problem of large-sample studies (Safran, Greenberg, & Rice, 1988). Additionally, this approach makes mediating factors of treatment efficacy more available.

Out of six participants in Salvadori (2010) study, two participants with a distinct outcome of *recovered*, as indicated by the RCI, and two participants with an outcome of *no change* were selected for the study in order to offer a variation in outcome.

Participants

Four of the six participants used in the Salvadori study were included in the case series (see Table 1). The participants in the Salvadori sample were chosen from the top of the waiting list for psychotherapy in a secondary care mental health service setting and met the following inclusion criteria for the study:

1) The BDI-II score > 19 at baseline and a diagnosis of common mental health difficulty indicated in their referral.
2) Not currently undergoing psychotherapy or in receipt of such within the last 6 months prior to the commencement of treatment.
3) No contraindications to the use of ISTDP. These include psychosis, alcohol and substance misuse or a life threatening physical health condition.

An initial assessment interview was used to obtain information relevant to inclusion criteria. Individuals who met the criteria were offered to participate in the study. At an initial assessment interview, the presence of such mental health problems as depression, dysthymia, agoraphobia, panic disorder, social phobia,

obsessive-compulsive disorder, psychotic disorders, and generalized anxiety disorder was evaluated using the Mini-International Neuropsychiatric Interview (MINI; Lecrubier et al., 1997). The MINI is a brief structured psychiatric interview tool compatible with international diagnostic criteria for the use in clinical and research settings (Sheehan et al., 1998) and can be administered by the interviewers outside of the psychiatric specialty. For this study the tool was administered by a trainee clinical psychologist. All participants provided informed consent to participate in the study and ethical approval for both the Salvadori and the current study was received from the Leicestershire, Northamptonshire and Rutland Research Ethics Committee 1.

Table 1

Participant Characteristics

Participant number	Age	Gender	Employment status	Diagnoses	Outcome
1	40	Female	Unemployed	Depression, agoraphobia social phobia, obsessive compulsive disorder	Recovered
2	27	Female	Employed	Dysthymia, panic disorder with agoraphobia	Recovered
3	62	Female	Retired	Depression	No change
4	40	Female	Unemployed	Depression, panic disorder social phobia, generalised anxiety disorder	No change

Measures

Outcome measures. The BDI-II (Beck, Steer, & Brown, 1996) was used to assess the severity of behavioural, affective and somatic symptoms of depression. It is a 21-item self-report measure with each item rated on a 4 point scale value from 0 to 3 (Appendix G). The higher scores are indicative of more severe symptoms: 14-19

representing mild depression, 20-28 signifying moderate depression and 29-63 indicative of severe depression. The BDI-II has been validated with adult and adolescent psychiatric outpatients and college students (Beck, Steer, Ball, & Ranieri, 1996; Dozois, Dobson, & Ahnberg, 1998). It has been reported as having a test-retest correlation coefficient of 0.93 and an internal consistency (α) of 0.91 for psychiatric outpatients (Beck, Steer, & Brown, 1996).

The CORE-OM (CORE System Group, 1998) was utilised to assess the severity of presenting problems. The CORE-OM is a self-report measure comprising of 34 items scored on a 5 point scale from 0 (not at all) to 4 (all the time) and targeting four specific domains for assessment: well-being, symptoms, life functioning and risk (Appendix J). A global score is obtained by multiplying the mean of the completed items by 10 with higher scores indicating higher distress. A cut-off score of 10 is used to distinguish clinical from non clinical populations. Internal consistency (α) of this tool is reported as being 0.75-0.95 and test-retest stability of most items falling within 0.87-0.91 range (Evans, Connell, Barkham, Margison et al., 2002).

Process measures. The Defense Recognition Scale - Insight (DRS-I; McCullough, Larsen, Schanche, Andrews, & Kuhn, 2008) is a subscale from the Achievement of Therapeutic Objectives Scale (ATOS) which is designed to assess achievement of specific treatment goals within therapeutic settings. Identified as important change mechanisms on therapeutic and clinical levels in Short-Term Dynamic Psychotherapy (STDP) the goals or items used in this tool have also been identified as common factors across therapeutic modalities (e.g. CBT, Mindfulness; McCullough et al., 2008). It is comprised of 7 observer-based items (subscales) each rated on a 1 to 100-point scale, which is divided into 10-point increments that are

linked to behavioural examples. The higher score indicated the greater level of insight. The DRS-I aims to measure insight or an individual's level of recognition and understanding of maladaptive defensive patterns underpinning their behaviour (Appendix H). Following the same rating pattern, it utilises a 100 point scale with 10 point increments. The raters focused on two main components of this construct: how clearly and fully is the client was able to describe their patterns of thoughts, feelings and behaviours that were maladaptive and how well they could articulate the reasons for the beginning and maintenance of the dominant patterns.

The Affect Experiencing Scale (AES; from the ATOS; McCullough et al., 2008) follows the same format as DRS-I and is used to measure a degree of arousal of adaptive affect (Appendix I). Three components of emotional arousal were considered by the raters: peak degree of arousal, its duration and relief in the experience of the feeling. Convergent validity of this scale is supported by positive correlations between the Experiencing Scale (Klein, Mathieu, Gendlin, & Kiesler, 1969) and the AES and the Defense Mechanism Rating Scale (Perry, 1990) and the AES.

Five consecutive studies assessed reliability of the ATOS (McCullough et al., 2003) using intraclass correlations. The authors highlight that rater training on the scales and its reliability show a clear "dose-response" relationship. The interrater reliability (consensus ratings) for the Defense Recognition Scale was estimated to be 0.80 and 0.81 respectively (McCullough et al., 2003).

Alliance measures. The Working Alliance Inventory – Short (WAI-S; Tracey & Kokotovic, 1989) was used to measure the working alliance between client and therapist (Appendices K & L). The WAI-S is a 12-item self-report tool scored on a 7-point scale ranging from 1 (never) to 7 (always), and can be used to obtain a

general alliance score and a score for 3 subscales: Task, Bond and Goals. The total score ranges from 12 to 84 with higher scores indicating stronger alliances. The instrument comes in two versions: a therapist version and a patient version. Both the therapist and the participants completed the WAI-S separately at the end of each therapy session. Based on an initial validation sample of client and therapist pairs, internal consistency (α) of the three subscale scores was reported to be 0.90-0.92 for the client version and 0.83-91 for the therapist version (Tracey & Kokotovic, 1989). Internal consistency (α) of the total scores was estimated to be 0.98 for the client version and 0.95 for the therapist version (Tracey & Kokotovic, 1989).

Therapy and therapist

Each participant undertook a weekly course of ISTDP. A minimum of 20 sessions were contracted with each participant, however, two out of four participants went on to receive further sessions. The psychotherapy was delivered by a newly qualified clinical psychologist who, at the time of treatment had received an immersion of around 100 hours of supervision in ISTDP. The therapy process was based on the premise that unconscious conflicted feelings result in unconscious (and conscious) anxiety which in turn influences formation of defenses to keep the warded-off feelings from surfacing and being consciously experienced further resulting in patient symptom formation (Davanloo, 2001). Therefore, the aim of the ISTDP was to help patients to relinquish their defences and learn how to express their feelings in an adaptive way. Some of the techniques employed to achieve emotional experiencing include systematic challenge of defences and mobilisation of avoided emotion by placing pressure towards it (Davanloo, 2001).

All therapy sessions were video recorded and routinely used by the therapist for self-review. In the Salvadori study, in each out of 20 sessions the therapist identified a point with the highest emotional arousal score using the AES and selected that particular segment for the study. Subsequently, the trained coders coded a 10-minute segment starting exactly 4 minutes prior to the therapist-identified peak affect moment in each session using the AES. Within the same segment the average degree of inhibition displayed by the participants was coded using the DIS.

Raters

The video recordings of the sessions were rated by the researcher and three additional raters. The researcher was a third year trainee clinical psychologist on the Doctorate in Clinical Psychology course. Three other coders were recruited on a voluntary basis and all had completed an undergraduate degree in psychology with graduate basis for registration. Their current occupations were a senior psychological wellbeing practitioner, a psychological wellbeing practitioner and a student nurse. All four raters undertook 16 hours of training on how to use the DRS-I scale which included up to 4 hours of interactive teaching by an expert rater and completed in excess of 12 hours of independent and group ratings of the individual psychotherapy sessions published by the American Psychological Association (APA). Following the rater training, inter-rater reliability scores (ICC) as measured against the ratings produced by the expert raters, published on the ATOS Trainer web page (ATOS Trainer, Achievement of Therapeutic Objectives Scale, 2010), were calculated.

Procedure

As reported in the Salvadori (2010) study, in order to determine a baseline level of functioning, the participants completed the BDI-II and CORE-OM outcome

measures on three separate occasions prior to the commencement of therapy: at an introductory assessment interview, at the diagnostic interview and before their first therapy session. Participants also reported their symptom distress using the CORE-OM and the BDI-II instruments before each therapy session. The therapeutic alliance was assessed immediately after each session using the WAI.

Video recordings of the therapy sessions were used to generate a data set for this study. Each session was watched and the participants' level of insight was coded by a pair of trained coders using the DRS-I. The coders watched 10 minute segments (e.g. 50 minute session contained five 10 minute segments watched by the coders) of each session and individually awarded a score using the DRS-I. Subsequently, the coders shared their scores and awarded a final consensus score to the insight by means of discussion and mutual agreement. A total number of 78 sessions from 50 to 70 minutes in length were coded. See diagrammatic explanation of the procedure in Figure 1.

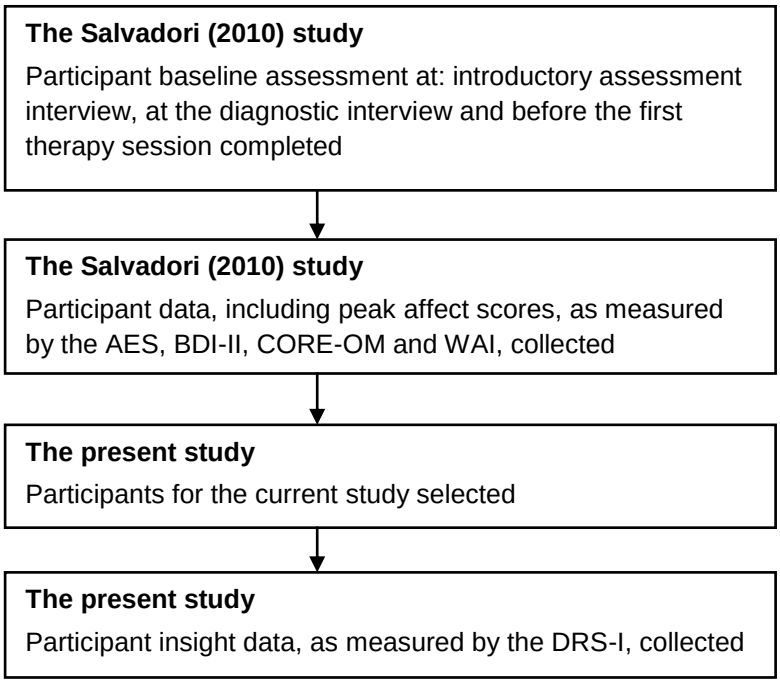


Figure 1 The diagrammatic explanation of the procedure and distinction between the Salvadori (2010) and the current studies

Beutler and Hill (1992) note that as familiarity of the coders with the coded material increases, the coders tend to become less attuned to the coded data. This process is known as a coder drift resulting in decreased reliability of the ratings. Hence, the rater drift was monitored after 50% of data were coded by completing a supplementary coding session of an APA tape and attending an interactive refresher session with an expert coder. Additionally, in order to avoid rater drift, the raters in this study swapped pairs half way through the coding process. Due to the change in circumstances and the limited availability of one coder, the researcher had to step into their place to form a second pair on several occasions. The chronological sequence of the sessions was randomised by an independent research officer who changed the file names of each session into random numbers generated using the Microsoft Office Excel software. The key for reversing randomisation was obtained only following the completion of the coding process. Hence, all the coders were blind to the temporal progression of the therapy as well as to the overall outcome of the therapy for each individual participant, which was revealed by the therapist to the researcher once the data collection was accomplished.

Analysis

A mediation model proposed by Baron and Kenny (1986) was used in the present study. The model suggests that three conditions have to be met in order to establish that a variable is functioning as a mediator:

1. Variation in proposed mediator (insight) can significantly be accounted by a variation in an independent variable (emotional experiencing) constituting a *path a.*

2. Variation in dependent variable (outcome) can significantly be accounted by the variation in mediator (insight) constituting a *path b*.
3. When control for *paths a* and *b* is introduced, a relationship between the independent and dependent variables, a *path c*, can no longer be established as significant (Baron & Kenny, 1986).

However, it is suggested to consider the latter relationship (*path c*) on a continuum whereby the relationship between independent and dependent variables weakens rather than is reduced to zero. Although, reduction of the relationships to zero would indicate a strong mediation and one dominant mediator, studying psychological phenomena frequently involves multiple influences and, therefore, hypothesising for a decreased relationship is more realistic (Baron & Kenny, 1986).

Results

Data Screening

In order to assess the assumption of normality, the data were inspected visually and tested using the Shapiro-Wilk test, reportedly, one of the most powerful tests of normality (Razali & Wah, 2011). Both the visual examination of the data and the Shapiro-Wilk test indicated that insight scores after peak affect experiencing were positively skewed for P2 ($W = .880$, $p = .047$) and P3 ($W = .761$, $p = .002$) and the BDI scores a week later were positively skewed for P3 ($W = .787$, $p = .005$). The insight scores before peak affect experiencing were positively skewed for P2 ($W = .874$, $p = .039$) and P3 ($W = .818$, $p = .011$). As a result, non-parametric tests were used for subsequent analyses. Descriptive statistics for peak affect and insight,

which occurred after the peak affect minute (post-peak affect insight) and before the peak affect minute (pre-peak affect insight) scores are provided in Table 2.

Table 2

Descriptive Statistics for Each Participant's Pre- and Post-Peak Affect Insight and Peak Affect Scores over the Course of 20 Sessions

	Recovered		No change	
Participant	1	2	3	4
Insight on DRS-I (pre-peak affect)				
Mean	48.61	46.06	37.63	35.31
SD	12.04	11.75	7.15	6.34
Mode	39	61	33	31
Minimum	31	28	30	21
Maximum	73	62	61	45
Insight on DRS-I (post-peak affect)				
Mean	44.71	42.65	38.64	37.36
SD	8.57	10.91	7.79	6.38
Mode	51	61	41	31
Minimum	32	31	31	31
Maximum	61	61	61	50
Peak affect on AES				
Mean	53.65	54.90	51.05	27.30
Mode				
SD	26.53	19.54	8.81	10.97
Mode	51	73	50	28
Minimum	1	19	30	4
Maximum	92	90	65	41

The ICC(1) values attained by the raters ranged from 0.62 to 0.70 achieving a good standard of reliability (Shrout & Fleiss, 1979).

Hypothesis testing

The results are presented according to the hypotheses. Hypothesis 1 was tested by examining differences between pre-and post-peak affect insight scores and by examining association between affect scores and post-affect insight scores. Firstly, each participant's data was analysed separately; secondly, the data was analysed by grouping the data by participant treatment outcome.

Differences in pre- and post-peak affect insight

A Mann-Whitney U test was used in order to establish whether there was a significant difference between pre- and post-affect insight for each participant and for participants analysed collectively by outcome. The Mann-Whitney revealed no significant differences between pre- and post-affect insight for each participant analysed individually (P1, $U = 101.50$, $Z = -.932$, $p = .351$; P2, $U = 124.00$, $Z = -.962$, $p = .336$; P3, $U = 125.00$, $Z = -.294$, $p = .769$; P4, $U = 79.00$, $Z = -.449$; $p = .653$). No differences between pre- and post-peak affect were found when participants' scores were analysed by outcome (Recovered, $U = 449.00$, $Z = -1.374$, $p = .170$; no change, $U = 401.50$, $Z = -.543$, $p = .587$).

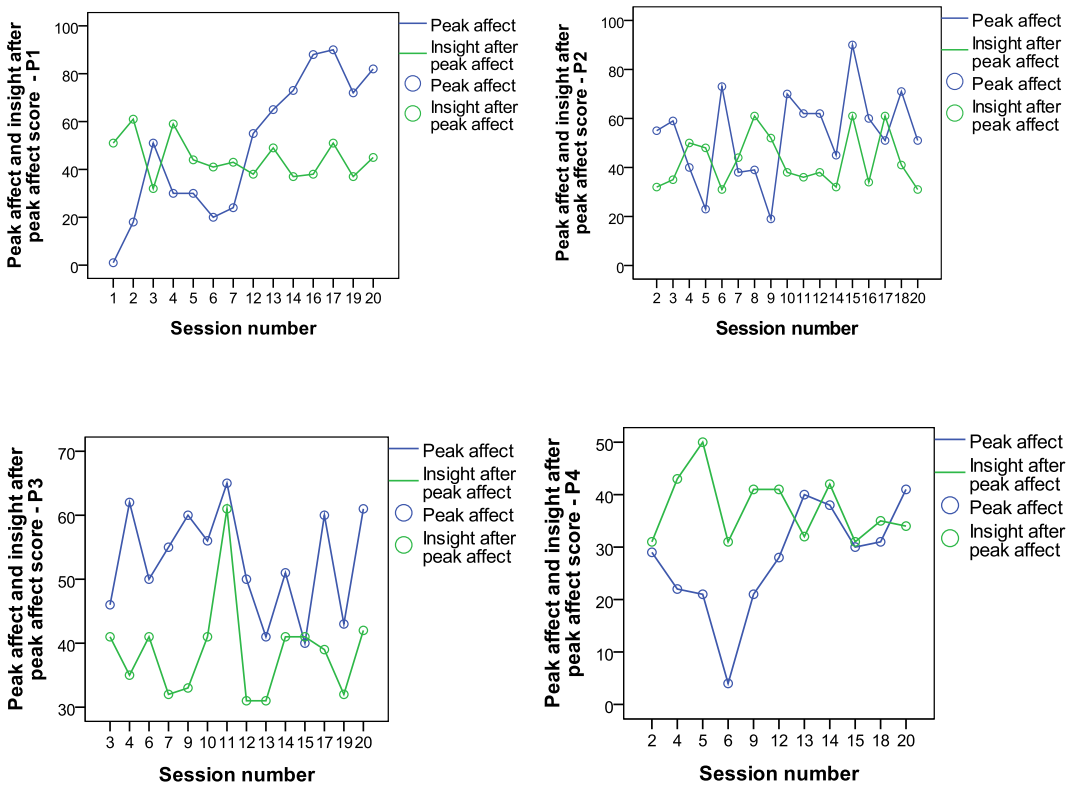
Correlation analyses

No significant correlations were established between peak affect and post-peak affect insight when the data from each participant were analysed separately (P1, $r_s = -.325$, $N = 14$, $p = .129$, one-tailed; P2, $r_s = -.295$, $N = 17$, p = .126, one-tailed; P3, $r_s = .376$, $N = 14$, $p = .093$, one-tailed; P4, $r_s = -.187$, $N = 11$, $p = .291$, one-tailed).

Visual examination of data (see Figure 1) shows that for P1 the intensity of affect experiencing did increase as therapy progressed whilst insight scores after the peak affect experiencing somewhat decreased early in therapy and remained

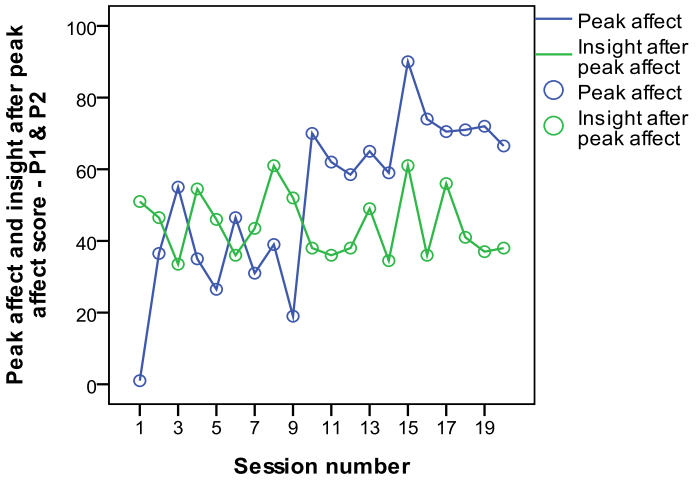
consistent throughout the course of treatment. For P2 a more scattered distribution of peak affect scores was observed, with a similar pattern notable in the distribution of post-peak affect insight. However, insight scores were generally closer to peak affect scores early in treatment, whilst in the second half of the treatment insight tended to remain lower than peak affect. P3 consistently displayed lower insight than peak affective experience. The insight scores tended to increase as scores in affective experiencing increased only in the second part of the treatment. At the beginning of their treatment, P4 appeared to display low affect experiencing; however, their insight scores were noticeably higher and closer to those of insight only towards the end of psychotherapy.

Figure 1 Peak affect and post-peak affect insight for P1, P2, P3 and P4



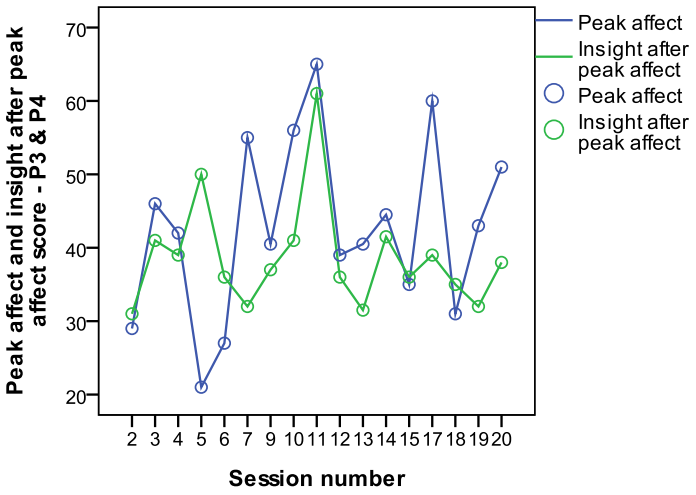
The analysis of the recovered participants' scores tested collectively showed a trend for negative association between peak affect and post-peak affect insight (r_s = -.298, N = 31, p = .051, one-tailed). Visual examination of the data shows that participants' insight tended to decrease as affect increased, particularly, towards the end of treatment (see Figure 2).

Figure 2 Peak affect and post-peak affect insight for P1 and P2



No significant correlations were established between peak affect and post-peak affect insight for patients who achieved no change during their treatment (r_s = .099, N = 25, p = .318, one-tailed). Visual examination of the data shows (see Figure 3) that P3 and P4 tended to display lower insight after the peak affect experience, with some high insight but low peak affect scores at the beginning of treatment and high affect but low insight scores towards the end of treatment.

Figure 3 Peak affect and post-peak affect insight for P3 and P4



Hypothesis 1 was concerned with a positive association between participant peak affect and insight after the peak affect experience. Correlation analyses showed that hypothesis 1 is not supported. Contrary to the hypothesis, a trend for the negative association in recovered participants was found.

Mediation analyses

Hypothesis 2 was tested by establishing correlations among the variables of interest (peak affect, post-peak affect insight and sessional outcome 7-days later) as measured by the BDI and the CORE (see Table 3 for descriptive statistics). Subsequently, regression analyses were conducted to establish whether the conditions for mediation were met.

Table 3

Descriptive Statistics for weekly CORE-OM and BDI-II Outcome Measures

	Recovered		No change	
Participant	1	2	3	4
CORE-OM				
Mean	8.48	14.18	26.15	22.33
SD	5.13	6.24	2.35	2.51
BDI				
Mean	16.58	16.68	51.79	31.63
SD	7.75	8.67	2.07	4.30

Correlation analyses

The data were analysed separately for each participant and by grouping participant data in two groups by treatment outcome.

Association between peak affect and sessional outcome. Significant negative correlations were established between affect and sessional outcome 7-days later for P1 (CORE, r_s = -.741, N = 19, p < .001, one-tailed; BDI, r_s = -.482, N = 19, p = .018, one-tailed); for P1 and P2 data analysed collectively (CORE, r_s = -.456, N = 38, p = .002, one-tailed; BDI, r_s = -.389, N = 38, p = .008, one-tailed), and for P3 and P4 data analysed collectively (CORE, r_s = .540, N = 38, p < .001, one-tailed; BDI, r_s = .740, p < .001, one-tailed). No other correlations were significant**.**

Association between affect and post-peak affect insight. A strong trend for negative association was found between affect and post-peak affect insight for P1 and P2 data analysed collectively (r_s = -.298, N = 31, p = .051, one-tailed). No other correlations were significant**.**

Association between post-peak affect insight and sessional outcome. Significant negative correlations were established between post-peak affect insight and sessional outcome 7-days later for P2 (CORE, r_s = -.509, N = 16, p = .022, one-tailed; BDI, r_s = -.502, N = 16, p = .024, one-tailed) and P1 and P2 data analysed collectively (BDI, r_s = -.327, N = 29, p = .042, one-tailed).

Preliminary correlational analyses showed that a potential mediation effect could be examined for P1 and P2 data analysed collectively due to significant correlations established between insight and treatment outcome 7-days later (BDI), affect and post-peak affect insight (a trend), and between affect and outcome.

Regression analyses predicting sessional outcome

Regression analyses were conducted to examine the extent to which peak affect and insight after peak affect explained variance in sessional outcomes as measured by the BDI for P1 and P2 analysed collectively. Steps for establishing mediators recommended by Baron and Kenny (1986) were followed. Regression analyses were performed with implementation of bootstrapping (1000 bootstraps), a nonparametric method of testing indirect effects (Bollen & Stine, 1990).

In the first step affect scores were entered as predictor variable and sessional outcome scores as criterion variable. Affect explained 17.3% of the variance in sessional outcome scores (R^2 = .173, F(1, 36) = 7.551, p = .009). The path from affect to sessional outcome (path c) was significant (B = -.146, SE = .043, p = .002).

In the second step affect scores were entered as predictor variable and post-peak affect insight as criterion variable. Affect accounted for only 8.3% of the variance in insight scores and this result was not significant (R^2= .083, F(1, 29) = 2.627, p = .116). The path from affect to post-peak affect insight (path a) was also not significant (B = -.120, SE = .076, p = .127).

In the third step sessional outcome was entered as a criterion variable, affect as a controlled variable in the first block and post-peak affect insight as a predictor variable in the second block. Affect explained 12.4% of the variance in the sessional outcome scores (R^2 = .124, F(1, 27) = 3.828, p = .061) and the result was not significant. The addition of insight at step 2 resulted in significant increment in the amount of variance explained in sessional outcome scores (ΔR^2= .176, F(1, 26) = 6.557, p = .017). The variables in the second model explained 30.1% of the variance in sessional outcome scores R^2 = .301, F(2, 26) = 5.586, p = .010. The paths from affect to sessional outcome (B = -.157, SE = .055, p = .006) and from post-peak

affect insight to sessional outcome (B = -.339, SE = .114, p = .006) were both significant.

In the fourth step sessional outcome was entered as criterion variable, insight was controlled for by entering it in the first block, and affect was entered as a predictor variable in the second block. Insight explained 8.4% of the variance in the sessional outcome score (R^2 = .084, F(1, 27) = 2.462, p = .128), but the result did not reach statistical significance. The addition of affect scores at step 2 resulted in a significant increase in the amount of variance explained in sessional outcome scores ΔR^2= .217, F(1, 26) = 8.066, p = .009. The variables in the second model explained 30.1% of the variance in sessional outcome scores R^2 = .301, F(2, 26) = 5.586, p = .010. The paths from insight to sessional outcome (B = -.339, SE = .115, p = .008) and from affect to sessional outcome (B = -.157, SE = .056, p = .011) were both significant.

The analyses show that necessary conditions for post-peak affect insight to function as a mediator are not met; therefore, indirect effects of insight cannot be established.

Secondary analyses

Additional analyses were performed in order to establish whether the change in insight (the difference between pre-and post-affect insight) rather than insight after the peak affect may be mediating the association between peak affect and sessional outcome.

Correlation analyses

Significant positive correlation was found between affect and insight change (r_s = .634, N = 13, p = .01, one-tailed) for P1. Significant negative correlations were

found between affect and sessional outcome (CORE, r_s = -.741, N = 19, p = < .001, one-tailed; BDI, r_s = -.482, N = 19, p = .018, one-tailed) and insight change and sessional outcome (CORE, r_s = -.635, N = 12, p = .013, one-tailed; BDI, r_s = -.665, N = 12, p = .009, one-tailed) for P1. No analyses for other participants showed significant associations among all three variables.

Regression analyses predicting sessional treatment outcome

Regression analyses with bootstrapping were further completed to examine the extent to which peak affect and insight change explained variance in sessional outcomes as measured by BDI and CORE for P1.

Regression analyses predicting sessional treatment outcome as measured by BDI. In the first step affect scores were entered into a regression equation as a predictor variable and sessional outcome scores as criterion variable. Affect explained 20.2% of the variance in sessional BDI scores (R^2 = .202, F(1, 17) = 4.299, p = .054), however, the results marginally fell short of significance. The path form affect to session outcome was significant (B = -.132, SE = .059, p = .031).

In the second step affect scores were entered as predictor variable and insight change scores as criterion variable. Affect significantly accounted for 37.7% of the variance in insight scores (R^2= .377, F(1, 11) = 6.668, p = .025). However, the path from affect to insight change fell short of significance (B = .221, SE = .099, p = .109).

In the third step sessional outcome was entered as a criterion variable, affect scores as a control variable in block one and insight change scores as a predictor variable in block 2. Affect explained 20.6% of the variance in the sessional outcome score (R^2 = .206, F(1, 10) = 2.592, p = .138) and results were not significant. The

addition of insight scores at step 2 resulted in an increase in the amount of variance explained in sessional outcome scores $\Delta R^2 = .178$, $F(1, 9) = 2.592$, $p = .142$, the result also was not significant. The variables in the second model explained 38.3% of the variance in sessional outcome scores $R^2 = .383$, $F(2, 9) = 2.799$, $p = .113$, however, this finding was not significant. The paths from affect to sessional outcome ($B = -.032$, SE = .092, $p = .684$) and from insight change to sessional outcome ($B = -.385$, $SE = .393$, $p = .238$) were both not significant.

In the fourth step sessional outcome was entered as criterion variable, insight change was controlled for by entering it in the first block, and affect was entered as a predictor variable in the second block. Insight explained 36.7% of the variance in the sessional outcome scores ($R^2 = .367$, $F(1, 10) = 5.793$, $p = .037$). The addition of affect scores at step 2 did not produce a significant increment in explained variance in sessional outcome scores $\Delta R^2 = .017$, $F(1, 9) = .243$, $p = .634$. The variables in the model explained 38.3% of the variance in sessional outcome scores $R^2 = .383$, $F(2, 9) = 2.799$, $p = .113$, however, statistical significance was also not reached. The paths from insight to sessional outcome ($B = -.385$, $SE = 1.755$, $p = .198$) and from affect to sessional outcome ($B = -.032$, $SE = .205$, $p = .662$) were both not significant.

Regression analyses predicting sessional treatment outcome as measured by CORE. In the first step affect scores were entered into a regression equation as a predictor variable and sessional outcome scores as a criterion variable. A significant proportion (47.4%) of variance in sessional outcome later was explained by affect scores, $R^2 = .474$, $F(1, 17) = 15.312$, $p = .001$. The path from affect to session outcome was significant ($B = -.134$, $SE = .030$, $p = .002$).

In the second step affect scores were entered as predictor variable and insight change scores as criterion variable. Affect significantly accounted for 37.7% of the

variance in insight scores (R^2= .377, F(1, 11) = 6.668, p = .025). However, the path from affect to insight change fell short of statistical significance (B = .221, SE = .096, p = .108).

In the third step sessional outcome was entered as a criterion variable, affect scores as a control variable in block one and insight change scores as a predictor variable in block two. Affect and insight accounted for 48.9% of the variance in the sessional outcome score (R^2 = .489, F(1, 10) = 9.568, p = .011). The addition of insight change scores at step 2 did not resulted in a significant increase in the amount of variance explained in sessional outcome scores ΔR^2= .030, F(1, 9) = .552, p = .476. The variables in the second model explained 51.9% of the variance in sessional outcome scores (R^2 = .519, F(2, 9) = 4.846, p = .037). The paths from affect to sessional outcome (B = -.101, SE = .065, p = .133) and from insight change to sessional outcome (B = -.134, SE = .349, p = .581) were both not significant.

In the fourth step sessional outcome was entered as criterion variable, insight change was controlled for by entering it in the first block, and affect was entered as a predictor variable in the second block. Insight explained 29.4% of the variance in the sessional outcome score (R^2 = .294, F(1, 10) = 4.172, p = .068); the result was not significant. The addition of affect scores at step 2 resulted in an increase in the amount of variance explained in sessional outcome scores ΔR^2= .224, F(1, 10) = 4.189, p = .071, however, the result did not reach the required level of significance. The variables in the model explained 51.9% of the variance in sessional outcome scores R^2 = .519, F(2, 9) = 4.846, p = .037. The paths from insight to sessional outcome (B = -.134, SE = .341, p = .578) and from affect to sessional outcome (B = -.101, SE = .063, p = .122) were both not significant. Therefore, it cannot be

concluded that the change in insight functions as a potential mediator between affect experiencing and sessional outcome 7-days later.

Correlations between the WAI-S(T) and WAI-S(C) scores and treatment outcome

A significant positive correlation for P1 and P2 analysed as a group was established between WAI-S(T) (therapist rated therapeutic alliance) and affect scores (r_s = .418, N = 39, p = .004, one-tailed) and negative correlation was established between WAI-S(T) and outcome scores (CORE, rs = -.665, N = 37, p < .001, one-tailed). The analysis using the BDI scores showed a trend for negative correlations (BDI, rs = -.261, N = 37, p = .060, one-tailed). The WAI-S(C) (participant rated therapeutic alliance) scores negatively correlated with outcome scores (CORE, rs = -.556, N = 37, p < .001, one-tailed). No other correlations were significant.

For P1, a significant positive correlation was established between affect and WAI-S(T) scores (r_s = .783, N = 20, p < .001, one tailed) and a negative correlation was noted between WAI-S(T) and outcome scores 7-days later (BDI; r_s = -.525, N = 19, p = .010, one-tailed; CORE, r_s = -.727, N = 19, p <. 001, one -tailed). The WAI-S(C) score for P1 were significantly correlated with affect scores (r_s = .379, N = 20, p = .050, one-tailed). No other correlations were significant. Regression analyses were conducted to examine the extent to which peak affect and post-peak affect insight scores explained variance in sessional outcomes (BDI and CORE) for P1 and P2 analysed collectively, after controlling for WAI-S(T) and WAI-S(C) scores. Regression analyses were also conducted to examine the extent to which peak affect and change in insight explained variance in sessional outcomes (BDI and CORE) for

P1, after controlling for WAI-S(T) and WAI-S(C) scores. Regression analyses were performed with the variables that were found to significantly correlate with treatment outcome. No indirect effects of insight were established when controlling for both WAI-S(T) and WAI-S(C) scores (see Appendix M).

Discussion

In this study 10-minute segments of ISTDP sessions before and after 1-minute peak affect segments in four participants were examined; firstly, in order to establish the association between affect experiencing and insight; secondly, to examine the role of insight occurring after the peak affect as a possible mediator in the relationship between affect experiencing and outcome. Additionally, changes in insight scores were examined for potential indirect effects.

Contrary to the hypothesised positive relationship between affect experiencing and insight, no significant positive associations were established between peak affect and post-peak affect insight for each participant individually, with a strong trend for negative association emerging in recovered participants. There were also no significant differences found between participant pre- and post-peak affect insight scores. One possible explanation for such results is that as the number of analysed data points increased for recovered participants, marginally significant association became more detectable. However, contrary to the hypothesised positive association, insight in recovered participants tended to decrease following a high affective experience. O'Connor et al. (1994) reported comparable results in terms of participant insight having been found to be lower in the last session than in the first irrespective of how successful the treatment was.

Moreover, there is no conclusive evidence to support the assumption that acquisition of insight throughout the course of therapy is a gradual and consistent process (Luborsky, Crits-Christoph, Mintz, & Auerbach, 1988). To the contrary, O'Connor et al. (1994) reported that in their pilot study participant insight did not increase session by session and over the course of treatment even in treatments that were more successful. Therefore, the findings from the current study can be tentatively explained within the context of earlier results whereby peak affect tended to increase over the course of therapy (Salvadori, 2010) whilst insight does not follow the same trajectory (O'Connor et al., 1994).

Secondary analyses, however, revealed that as affective experience increased so did the change in insight in P1. The change in insight was also negatively correlated with treatment outcome on CORE and BDI measures. However, the change in insight was not found to have a mediating effect between affect and outcome. It also did not emerge as a significant predictor of treatment outcome. Although the differences between pre- and post-peak affect insight were short of statistical significance, descriptive statistics in Table 2 indicate the mean of pre-peak affect insight was higher (mean 48.61, SD 12.04) than that of post-peak affect insight (mean 44.71, SD 8.57). One of the limitations of this study is the lack of control for participant variables, which potentially could account for inconsistent results between participants with similar treatment outcomes. Also, grouping participants by treatment outcome or examining each participant's data individually might have considerably reduced statistical power and, consequently, affected a statistical significance of the results.

In order to examine mediation effects correlations between independent (affect) and dependent (treatment outcome 7-days later) variables – path c,

independent variable and a candidate mediator (post-peak affect insight) – path a, and candidate mediator and dependent variable – path b are recommended (Baron and Kenny, 1996). Preliminary correlational analyses showed that path b (only with BDI) and path c were significant and path a only approached significance for recovered participant data analysed collectively. Although the direction of the association within path a was different from that expected, Hayes (2009) argues that it is not pertinent to mediation effects whether individual pathways have been established as significant or not significant, and indirect effects should be fully examined in either case. Hence, all steps were completed in order to test for indirect effects.

The results obtained from the regression analyses showed that insight did not function as a mediator in recovered participants; instead both peak affect and insight emerged as significant predictors of treatment outcome. These findings are interesting and, in part, consistent with other findings that have shown emotional experiencing to be associated with desirable treatment outcome (Coombs, Coleman, & Jones, 2002; Watson & Bedard, 2006) and insight to be a predictor of improvement in participant symptom distress (Gelso et al., 1997; Kallestad et al., 2010). The emergence of both peak affect and post-peak affect insight as predictors of symptom distress may also explain a lack of positive correlation between these two variables found in this study. It might be possible that both insight and emotional experiencing in psychotherapy affect outcome though diverse paths involving diverse mechanisms of change in the process. Another possibility is that insight is a stronger predictor of dynamic change (e.g. interpersonal functioning) than it is of symptom change (e.g. Høglend, Engelstad, Sørbye, Heyerdahl, & Amlo,

1994), therefore, considering a wider spectrum of treatment outcomes in the process of mediation may be of value.

Methodologically, however, it is possible that insight was not reported by the participants, hence, not coded by the raters. Also, participants could have delayed reporting their insight beyond a 10 minute segment and, as a result, detection of it was limited by the design of the study.

Methodological critique

One of the limitations of this study is pertinent to single case series designs and concerns generalisability of the results to other individuals (Gravetter & Forzano, 2008). Often, the small number of participants, characteristic of much process research, can be reflective of its time-consuming nature in terms of the data collection and analysis (Elliott, 2010); however, it aims to produce the evidence for who and how treatments work to bring about change, as opposed to exploring treatment effectiveness (Kazdin, 2007). On one hand this study is limited to the results of four participants, however on the other hand, intrasubject variability, which can be lost in large scale studies has been scrutinised to produce results that can inform hypotheses of larger scale studies. It has to be borne in mind, though, that the use of related data (as opposed to the use of independent data points), which may introduce bias to the analysed values, warrants caution when interpreting the results.

This study investigated process variables of psychodynamically oriented psychotherapy, which offers no critical indication of whether the findings are due to the treatment received. A more vigorous design could be helped with including a comparison group of a different therapeutic orientation in order to secure more definitive results (Garfield, 1990). For instance, Kallestad et al. (2010) found a

significant increase in participant levels of insight in a STDP group but not in a cognitive therapy group. Concerning the current study, its findings can only be considered in relation to ISTDP and within the limitations of a small sample size.

Two of the four participants in this study went on to receive further therapy; hence, the analysed data did not reflect a complete course of treatment. It is possible that, for these particular participants, change in insight was not associated with the outcome in relatively early stages of treatment; yet, the association of insight with other key variables might be of interest.

Participant baseline emotional functioning was not measured in this study. This introduced additional limitations to the present study. It remains unclear what role the potential differences or a lack of such differences in session-by-session participant emotional functioning played in relation to the sessional insight and treatment outcome scores.

A particular strength of this study is concerned with several aspects of data collection which included highly labour-intensive work of independent coders who contributed to the coding of the video recordings of the sessions. Firstly, the raters (except the main researcher who also was a rater) were blind to the hypotheses of this study, which was one of the ways to control for rater bias during the data collection process. Secondly, the order of the sessions coded was presented to all the raters in a random order, eliminating coder bias associated with the stage of treatment. Raters worked in pairs, which introduced a consensual way of assigning a score to observed participant behaviour. Rater drift was controlled by providing a refresher session on coding as well as swapping the coder pairs half-way through the coding process.

The method of studying a small number of process variables lends itself to testing theories of the processes that influence psychotherapy (Elliott, 2010). The current study, addressed a theoretical proposition pertinent to most schools of psychotherapy that acquisition of insight plays an important role in psychotherapeutic process and is linked to treatment outcome (e.g. Messer and McWilliams, 2007; Pascual-Leone and Greenberg, 2007; Holtforth et al., 2007; Ellis, 1963). The current findings contribute to the theory by tentatively suggesting that insight might function as an independent predictor of treatment outcome, as measured by improvement in participant symptom distress.

The paucity of moment-by-moment research of dynamic change within psychotherapy is attributed to the methodological challenges and demands inherent in this particular approach of studying process variables (Pascual-Leone, 2009). However, using a moment-by-moment approach to studying change mechanisms enables researchers to shift from providing general explanations of the process of change, which can vary across theoretical perspectives, to actually exploring how change occurs over time (Pascual-Leone, 2009). Hence, measuring insight at the moment-by-moment level of process and using the ATOS, an instrument purposefully designed for an assessment of process measures using video footage, can be considered as one of the strengths of this study.

Clinical implications

The findings of the present study only tentatively suggest that insight might be implicated in the process of change and might function as a predictor of treatment outcome. Within ISTDP patient insight into maladaptive patterns/defences (including thoughts, feelings and behaviours) is a key prerequisite for subsequent

work towards the resolution of one's core conflicts (Davanloo, 2001). It is the aim of the ISTDP therapist to ensure that a patient has gained a good understanding of their maladaptive defensive functioning (e.g. devaluing self or/others, acting out) including the ways in which it is defeating the therapeutic process (Have-de Labije & Neborsky, 2012). Hence, acquisition of insight into the barriers to healthier functioning has theoretical and practical significance in ISTDP in that it offers the patient a choice of relinquishing defensive processes and taking an active role in the process of change. The preliminary findings of the present study are consistent with this particular treatment goal in ISTDP.

Bearing in mind that the findings of the current study are inconclusive and limited to ISTDP, clinical implications for other therapeutic modalities could be relevant if considered in the context of common change factors. For example, transference interpretation is one of the techniques used to facilitate insight in psychodynamic psychotherapy (Gabbard & Horowitz, 2009). Cognitive behavioural approaches use guided discovery to help patients to understand the links among their thoughts, feelings and behaviours (Westbrook, Kennerley, & Kirk, 2007). With respect to the results of the current study, taking into account psychotherapist techniques that facilitate patient insight, for instance, frequency and circumstances of their application, might be an important area for reflection for practicing clinicians.

Based on the current findings, recommendations for clinical training can also be considered. Facilitating an understanding of the role of insight in psychotherapy during the training of trainees who rely on theoretical conceptualisations when planning patient treatment, may help trainees to optimise their psychotherapeutic technique and contribute to the best possible outcome for their patients. Additional considerations could be given to a process of assessment of the trainee skills that

help facilitate patient insight regardless of the particular therapeutic approach being taught.

Suggestions for future research

Given the limited generalisability of the current findings, research involving larger samples is required. Larger scale studies should consider including other therapeutic approaches in their investigation of the process variables. An emergence of comparable findings amongst the studies may be indicative of common therapeutic factors active across diverse models of psychological treatment (Garfield, 1990), which is especially relevant to the study of cross-modally implicated factors such as insight.

Mediation studies have only started gaining a momentum in investigating how and why psychotherapeutic interventions work (Kazdin, 2007). Where ethically appropriate and practically possible, strong designs such as RCTs, which would include manipulation of putative mediators, could yield strong evidence for whether insight functions as a mediator in psychotherapy (Bullock, Green, & Shang, 2008). However, pertinent to the findings of the present study, an exploration of direct effects of insight on treatment outcome (e.g. Kallestad et al., 2010; Høglend et al., 1994) could be as valuable as an exploration of the mediated effects.

Finally, as new research is conducted the operationalisation of insight should be taken into consideration. An operational definition of insight in the current study was that proposed by the ATOS, however, this is only one of the many definitions of insight encountered in the research literature (Connolly Gibbons et al., 2006). This overarching problem with the definition of insight deems empirical data difficult to compare, replicate and apply to clinical settings notwithstanding the attempts of

individual studies to define the construct. Hence, future studies could improve the status quo related to the definition of insight by exploring a possibility of defining the construct in a way that would be more conducive to empirical replication across psychotherapeutic modalities explored.

ISTDP uses specific techniques in order to facilitate patient emotional experiencing through the process known as the unlocking of the unconscious (Davanloo, 1980). Differing from other emotional experiencing, unlocking of the unconscious is characterised by the complex feelings of rage, guilt about rage, grief and love associated with past trauma in relation to past attachment figures (Davanloo, 2001). Numerous single-case observations showed that the experience of complex feelings is linked to patient symptom removal (Davanloo, 1980; Sifneos, 1979). Hence, further research should focus on coding insight after the unlocking of the unconscious took place in the session in order to examine whether higher insight scores could be obtained following the breakthrough of complex feelings. The participants in the current study experienced from around two to four unlockings of the unconscious during the course of treatment, therefore it might not be surprising that the insight scores were relatively low (see Table 2).

Conclusion

This study examined post-peak affect insight as a putative mediating variable between affect experiencing and treatment outcome using a single case series design. It also investigated a relationship between increase in affect and an increase in insight over the course of 20 sessions of ISTDP. The participants were not found to show greater levels of insight following the segments of therapy when they demonstrated higher degrees of affect experiencing. The post-peak affect insight did

not mediate the relationship between affect experiencing and treatment outcome. However, the data of two participants who were classed as recovered indicated that both peak affect experiencing and post-peak affect insight emerged as significant predictors of treatment outcome. Within the limitations of this study, the current findings support one of the imperative treatment goals within ISTDP - to support a patient in the process of recognition of their defenses, which can then be relinquished with an aim to experience true conflicted feelings. Given the small number of participants, further exploration of these finding as well as the indirect effects of insight on treatment outcome in larger studies is warranted.

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Section 3

Appendices

Appendices for the literature review

Appendix A - Quality appraisal criteria for selected studies

Measures	Criteria	Appraisal	Scoring
General			
Operational definition	Was operational definition of the construct provided?	Yes No	1 0
Control/comparison group	Was control/comparison group included in the study?	Yes No	1 0
Process measures			
Reliability	Was at least one reliability study of the measures used reported?	Yes No or unable to determine	1 0
Inter-rater reliability	Was inter-rater reliability addressed?	Yes No or unable to determine	1 0
Validity	Was at least one validity study of the measures used reported?	Yes No or unable to determine	1 0

Segmentation of the process	Was variation of participant behaviour during the process addressed?	Yes No	1 0
Randomisation (data)	Were data units randomised for measurement?	Yes No or unable to determine	1 0
Randomisation (participants)	Was participant allocation to groups randomised?	Yes No or unable to determine	1 0
Measurement approach	Was the process assessed using one or multiple viewpoints?	Independent rater and at least one other viewpoint One viewpoint or multiple not including independent rater	1 0.5
Data format used	Was data collected using video/audio/transcript/participant ratings/independent rater/therapist ratings or multiple formats?	Video and multiple others One or combination of audio, transcript, participant ratings and independent rater ratings	1 0.5
Internal validity - bias	Were those measuring process variables blind to the aims of the study?	Yes No or unable to determine	1 0

Outcome measures			
Reliability	Was at least one reliability study of the measures used reported?	Yes No	1 0
Validity	Was at least one validity study of the measures used reported?	Yes No	1 0
Responsiveness/follow up	Was follow-up assessment included in the study?	Yes No	1 0
Measurement approach	Was the process assessed using one or multiple viewpoints?	Independent rater and at least one other viewpoint One viewpoint or multiple not including independent rater	1 0.5
Data format used	Was data collected using video/audio/transcript/participant ratings/independent rater/therapist ratings or multiple formats?	Video and multiple others One or combination of audio, transcript, participant ratings and independent rater ratings	1 0.5

Appendix B – Quality appraisal of the studies reviewed

	Process measures											Outcome measures					Quality of the study
Study	Operational definition	Control/comparison group	Reliability Inter-rater reliability	Validity	Segmentation of the process	Randomisation (data)	Randomisation (participants)	Measurement approach	Data format used	Internal validity - bias		Reliability	Validity	Responsiveness/ follow up	Measurement approach	Data format used	Score
Kallestad et al. 2010	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	IR	Video	No	Yes	Yes	Yes	PR	RD	12.5
Johansson et al. (2010)	Yes	Yes	Yes	Yes	Yes	No	No	Yes	IR	Audio, interview	Yes	Yes	Yes	Yes	IR	RD	12
Diemer et al. (1996)	Yes	No	Yes	Yes	Yes	No	Yes	No	IR, PR, TR	RD	Yes	Yes	Yes	Yes	PR, TR	RD, transcripts	11.5
Kivilighan et al. (2000)	Yes	No	Yes	Yes	Yes	No	Yes	No	IR	Video, Audio	No	Yes	No	Yes	PR, TR	RD	9.5
Connolly Gibbons et al. (2009)	Yes	No*	Yes	Yes	Yes	No	No	No	PR	RD	No	Yes	Yes	Yes	PR	RD	9
Høglend et al. (1994)	No	No	Yes	Yes	Yes	No	No	No	TR	Audio	No	Yes	Yes	Yes	IR, PR	Audio	8.5

(See next page)

Gelso et al. (1997)	Yes	No	Yes	No	Yes	No	No	No	TR	RD	No	Yes	Yes	No	PR, TR	RD	7
Connolly et al. (1999)	Yes	Yes	Yes	No	No	No	No	No	PR	RD	No	Yes	Yes	No	PR	RD	7
O'Connor et al. (1994)	Yes	No	Yes	Yes	No	No	No	No	IR	Transcripts	No	No	No	Yes	IR, PR	RD, interview	6.5
Sexton (1993)	Yes	No	Yes	No	No	No	No	No	PR, TR	RD	No	Yes	Yes	No	PR,TR	RD	6
Levy et al. (2006)	Yes	Yes	No	No	No	No	No	Yes	IR	RD	Yes	No	No	No	IR, TR	RD, transcripts	5.5
Slaski and Zylicz (2006)	Yes	No	Yes	No	No	No	No	No	PR	RD	No	Yes	No	No	PR	RD	5
Paul (1967)	No	Yes	No	No	No	No	No	Yes	PR,TR	RD	No	No	No	Yes	PR	RD	4
Barth et al. (1988)	No	No	Yes	Yes	No	No	No	No	PR	RD	No	No	No	Yes	PR, TR	RD	4
Høglend et al. (2000)	No	No	No	Yes	No	No	No	No	PR, TR	Audio, RD	No	Yes	No	No	IR, TR	RD, Audio	4
LaPointe and Crimm (1980)	Yes	No	No	No	No	No	No	No	PR	RD	No	No	No	Yes	PR	RD	4
Hoffart et al. (2002)	No	No	No	No	No	No	No	No	IR, PR, TR	RD	No	No	No	Yes	IR, PR, TR	RD	4
Mann and Mann (1959)	Yes	Yes	No	No	No	No	No	Yes	IR	PR	No	No	No	No	UD	RD	4

(See next page)

Sexton (1996)	No	No	No	No	No	No	Yes	No	PR, TR	RD	No	No	No	No	PR, TR	RD	3
Rosenbaum et al. (1956)	Yes	No	No	No	No	No	No	No	TR	RD	No	No	No	No	TR	RD	3

Notes: IR - independent rater, PR- patient ratings, TR - therapist ratings, RD – ratings data (obtained from participants and therapists).

Appendices for the research report

Appendix C – Ethical approval for a substantial amendment and a change of chief investigator

National Research Ethics Service
NRES Committee East Midlands - Leicester
The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

Tel: 0115 8839440
Fax: 0115 9123300

01 July 2011

Dr Alison Salvadori
Oxford Weight Loss Lifestyle Service
Sandford Gate
East Point Business Park
Oxford OX4 6LB

Dear Dr Salvadori

Study title:	**An investigation into the relationship between affect experiencing and distress in Intensive Short-Term Dynamic Psychotherapy**
REC reference:	**09/H0406/89**
Amendment number:	**2**
Amendment date:	**26 May 2011**

The above amendment was reviewed at the meeting of the Sub-Committee held on 01 July 2011.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
Confirmation of CI's Indemnity		30 March 2011
IRAS: Part D1, signed by new CI		10 June 2011
Protocol	2	28 February 2010
Notice of Substantial Amendment (non-CTIMPs)	2	26 May 2011

Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

09/H0406/89:	**Please quote this number on all correspondence**

Yours sincerely

Dr Carl Edwards
Chair

E-mail: Jessica.chatrie@nottspct.nhs.uk

Enclosures: *List of names and professions of members who took part in the review*

Copy to: *Ms Christie Harrison*
Miss Corinne Gale, Derbyshire Mental Health Services NHS Trust

NRES Committee East Midlands - Leicester

Attendance at Sub-Committee of the REC meeting on 01 July 2011

Name	*Profession*	*Capacity*
Mr John Baker	Radiation Protection Advisor and Senior Lecturer (retired)	Lay
Dr Carl Edwards	Senior Research Fellow	Lay

Also in attendance:

Name	*Position (or reason for attending)*
Mrs Lisa Gregory	Committee Co-ordinator

Appendix D – Ethical approval for the changes in the protocol*

The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

Tel: 01158839440
Fax: 01159123300

07 October 2011

Jurga Paserpskyte
Clinical Psychology Unit
Department of Psychology
The University of Sheffield
Western Bank
Sheffield
S10 2TN

Dear Jurga Paserpskyte,

Study title: **A Does Clients' Insight into their Defensive Functioning Mediate the Relationship between Affect Experiencing and Outcome in Intensive Short Term Dynamic Psychotherapy?**
REC reference: **09/H0406/89**
Amendment number:
Amendment date: **21 September 2011**

The above amendment was reviewed at the meeting of the Sub-Committee held on 07 October 2011.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
Protocol	3	21 September 2011
Notice of Substantial Amendment (non-CTIMPs)		21 September 2011

Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

*Coder occupations were changed from assistant psychologists in order to include a wider spectrum of occupations, e.g., psychological wellbeing practitioners.

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

09/H0406/89:	**Please quote this number on all correspondence**

Yours sincerely

Dr Carl Edwards
Chair

E-mail: Sam.Tuite@nottspct.nhs.uk

Enclosures: *List of names and professions of members who took part in the review*

Copy to: *Ms Christie Harrison*
Miss Corinne Gale, Derbyshire Mental Health Services NHS Trust

NRES Committee East Midlands - Leicester

Attendance at Sub-Committee of the REC meeting on 07 October 2011

Name	*Profession*	*Capacity*
Mr John Baker	Radiation Protection Advisor and Senior Lecturer (retired)	Lay
Dr Carl Edwards		None

Also in attendance:

Name	*Position (or reason for attending)*
Miss Jessica Chatrie	Committee Co-ordinator

Appendix E – Research & Development Department approval for the substantial amendment and change of chief investigator

Mental Health Research Unit
Kingsway House
Kingsway
Derby
DE22 3LZ

Tel: (01332) 623579
Fax: (01332) 623576
Email: Corinne.Gale@Derbyshcft.nhs.uk

7 July 2011

Jurga Paserpskyte
Clinical Psychology Unit
Department of Psychology
The University of Sheffield
Western Bank
Sheffield
S10 2TN

Dear Jurga

RE: Does Clients' Insight into their Defensive Functioning Mediate the Relationship between Affect Experiencing and Outcome in Intensive Short Term Dynamic Psychotherapy?

I acknowledge the receipt of your amendment, enclosing the following revised documentation for the above study:

Document	*Version*	*Date*
Protocol	2	28/02/2010
Confirmation of CI's Indemnity		30/03/2011
Notice of Substantial Amendment	2	26/05/2011
IRAS Part D1 – Signed by new CI	1	10/06/2011

The revised documents have been reviewed by Derbyshire Healthcare NHS Foundation Trust Clinical Research Committee and they have agreed the proposed amendment and the change of Chief Investigator. You may therefore progress with the study as described in the amendment.

Please do not hesitate to contact me if I can be of assistance.

Yours sincerely

Corinne Gale
Research and Research Development Manager

Appendix F – Research & Development Department approval for the substantial amendment

Derbyshire Healthcare NHS
NHS Foundation Trust

Amendment Acknowledgement

Mental Health Research Unit
Kingsway House
Kingsway
Derby
DE22 3LZ

Tel: (01332) 623579
Fax: (01332) 623576
Email: Rubina.Reza@Derbyshcft.nhs.uk

07 December 2011

Ms Jurga Paserpskyte
Department of Psychology
Clinical Psychology Unit
The University of Sheffield
Western Bank
Sheffield
S10 2TP

Dear Ms Jurga Paserpskyte

The Derbyshire Healthcare NHS Foundation Trust R&D department has reviewed and approved the amendment requested on 11/11/2011 to the following study:

Title: Does Clients' Insight into their Defensive Functioning Mediate the Relationship between Affect Experiencing and Outcome in Intensive Short Term Dynamic Psychotherapy? (09/H0406/89)

Amendment Documents Received:
1. REC amendment approval letter 21/09/2011
2. Notice of substantial amendment form 21/09/2011
3. Protocol version 3, 21/09/2011

In order to minimise service disruption please ensure that you inform Team Managers of the teams from which you will be seeking participant recruitment.

As part of our monitoring requirements, we will ask you for a progress report six months after the start of your study, and every six months as applicable. We will also ask you for a short summary of your research findings once the study is complete to assist in the dissemination process within the Trust.

You can now proceed with your study in accordance with the agreed protocol and the Research Governance Framework. Please notify us immediately of any adverse events or changes to the protocol.

If you require any further information please do not hesitate to contact me.

Yours sincerely

Reza

Rubina Reza
Research & Clinical Audit Manager

On behalf of Dr John Sykes and the Clinical Research Committee

Appendix G – Beck Depression Inventory – II

Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1. Sadness

0 I do not feel sad.
1 I feel sad much of the time.
2 I am sad all the time.
3 I am so sad or unhappy that I can't stand it.

2. Pessimism

0 I am not discouraged about my future.
1 I feel more discouraged about my future than I used to be.
2 I do not expect things to work out for me.
3 I feel my future is hopeless and will only get worse.

3. Past Failure

0 I do not feel like a failure.
1 I have failed more than I should have.
2 As I look back, I see a lot of failures.
3 I feel I am a total failure as a person.

4. Loss of Pleasure

0 I get as much pleasure as I ever did from the things I enjoy.
1 I don't enjoy things as much as I used to.
2 I get very little pleasure from the things I used to enjoy.
3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings

0 I don't feel particularly guilty.
1 I feel guilty over many things I have done or should have done.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6. Punishment Feelings

0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7. Self-Dislike

0 I feel the same about myself as ever.
1 I have lost confidence in myself.
2 I am disappointed in myself.
3 I dislike myself.

8. Self-Criticalness

0 I don't criticize or blame myself more than usual.
1 I am more critical of myself than I used to be.
2 I criticize myself for all of my faults.
3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes

0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10. Crying

0 I don't cry anymore than I used to.
1 I cry more than I used to.
2 I cry over every little thing.
3 I feel like crying, but I can't.

_____ Subtotal Page 1

Continued on Back

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11. Agitation

0 I am no more restless or wound up than usual.
1 I feel more restless or wound up than usual.
2 I am so restless or agitated that it's hard to stay still.
3 I am so restless or agitated that I have to keep moving or doing something.

12. Loss of Interest

0 I have not lost interest in other people or activities.
1 I am less interested in other people or things than before.
2 I have lost most of my interest in other people or things.
3 It's hard to get interested in anything.

13. Indecisiveness

0 I make decisions about as well as ever.
1 I find it more difficult to make decisions than usual.
2 I have much greater difficulty in making decisions than I used to.
3 I have trouble making any decisions.

14. Worthlessness

0 I do not feel I am worthless.
1 I don't consider myself as worthwhile and useful as I used to.
2 I feel more worthless as compared to other people.
3 I feel utterly worthless.

15. Loss of Energy

0 I have as much energy as ever.
1 I have less energy than I used to have.
2 I don't have enough energy to do very much.
3 I don't have enough energy to do anything.

16. Changes in Sleeping Pattern

0 I have not experienced any change in my sleeping pattern.
1a I sleep somewhat more than usual.
1b I sleep somewhat less than usual.
2a I sleep a lot more than usual.
2b I sleep a lot less than usual.
3a I sleep most of the day.
3b I wake up 1–2 hours early and can't get back to sleep.

17. Irritability

0 I am no more irritable than usual.
1 I am more irritable than usual.
2 I am much more irritable than usual.
3 I am irritable all the time.

18. Changes in Appetite

0 I have not experienced any change in my appetite.
1a My appetite is somewhat less than usual.
1b My appetite is somewhat greater than usual.
2a My appetite is much less than before.
2b My appetite is much greater than usual.
3a I have no appetite at all.
3b I crave food all the time.

19. Concentration Difficulty

0 I can concentrate as well as ever.
1 I can't concentrate as well as usual.
2 It's hard to keep my mind on anything for very long.
3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

0 I am no more tired or fatigued than usual.
1 I get more tired or fatigued more easily than usual.
2 I am too tired or fatigued to do a lot of the things I used to do.
3 I am too tired or fatigued to do most of the things I used to do.

21. Loss of Interest in Sex

0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

20 A B C D E

NOTICE: This form is printed with both blue and black ink. If your copy does not appear this way, it has been photocopied in

_____ Subtotal Page 2

_____ Subtotal Page 1

Appendix H - Achievement of Therapeutic Objectives Scale: ATOS Scale – Awareness or Insight into Maladaptive Patterns Subscale

AWARENESS OR INSIGHT INTO MALADAPTIVE PATTERNS 20 Aug08

STDP: Defense Recognition (Noting Patterns of Maladaptive Defenses, Anxieties, and Feelings)
CBT: Recognition of Maladaptive Cognitions or Maladaptive Cognitive Schemas
DBT: Mindfulness of self-destructive pattern. Degree of dialectical thinking/ behavior observation.

MAIN COMPONENTS:

1. Degree of clarity and fullness of **verbal** descriptions of maladaptive patterns of thoughts, feelings, and/or behaviors, with explicit examples.
2. Degree of ability to state why and how maladaptive/defensive patterns began and are maintained (secondary gain, meanings, causes, and with whom.).

NOTE: Rate higher within each 10-point category for multiple examples, and lower for fewer examples.

BRIEF OVERVIEW OF AWARENESS OR INSIGHT INTO MALADAPTIVE PATTERNS OF THOUGHTS, FEELINGS, AND/OR BEHAVIORS

81-100 - **Excellent recognition** of problem patterns. Excellent links to past origin of behaviors. Excellent awareness/insight.
61-80 - **Good recognition** of problem patterns. Some description of origins in past, linked to present. Good awareness/insight.
41-60 - **Moderately clear recognition**. **On own** describes occurrence of maladaptive patterns. No references to past. Moderate awareness/insight.
21-40 - **Low recognition**. Can see problem pattern **only** when pointed out by therapist. Little/no elaboration. Minimal awareness/insight.
1-20 - **No recognition** of maladaptive behavior patterns, or unsure when pointed out. May mention anxiety without reference to pattern. No awareness/insight or resists awareness/insight.

91-100 **Excellent recognition of maladaptive behavior patterns**. Clear, comprehensive descriptions of maladaptive patterns. Describes clearly and fully how pattern is transferred from past to present. (e.g.; learning history or T-C-P links). Also, excellent descriptions of reasons for maladaptive responses, including meanings and secondary gain. Excellent and full awareness/insight.

81-90 **Very good recognition of maladaptive behavior patterns.** Clear, somewhat detailed descriptions of maladaptive patterns. Very good description of origins in past, linked to present. Very good understanding of reasons for maladaptive responses, meanings and secondary gain—but not all aspects mentioned. Very good awareness/insight.

71-80 **Good recognition of maladaptive behavior patterns**. Good but not detailed descriptions of maladaptive patterns. Some description of origins in past, linked to present. Good understanding of reason for maladaptive responses or secondary gain. Good awareness/insight.

61-70 **High-moderate recognition of maladaptive behavior patterns**. Fairly good, general descriptions of maladaptive patterns. Minimal description of origins in past, or links to present. Some understanding of reasons for maladaptive responses or secondary gain. Fairly good awareness/insight.

51-60 **Moderate recognition of maladaptive behavior patterns**. Partial descriptions of maladaptive patterns. No past-present links. No mention why maladaptive behaviors occur or secondary gain. Moderate awareness/insight.

41-50 **Low-moderate recognition of maladaptive behavior patterns**. **On own** begins to describe maladaptive patterns but only vague or general description without clear examples. No past-present links. No mention of why maladaptive behaviors occur nor understanding of secondary gain. Some awareness/insight.

31-40 **Low recognition of maladaptive behavior patterns**. Can acknowledge maladaptive patterns **only** when pointed out, but readily agrees when pointed out by therapist—with little elaboration. Lower level: Agrees without reluctance but does not elaborate further. Beginning awareness/insight.

21-30 **Minimal recognition of maladaptive behavior patterns**. Can acknowledge maladaptive behavior **only** when pointed out, but reluctantly agrees and does not elaborate further. Upper level: Agrees with a little reluctance. Lower level: Agrees with much reluctance/or unclear whether the patient agrees or not. The barest evidence of beginning awareness/insight.

11-20 **No recognition of maladaptive behavior patterns**. Does not recognize maladaptive patterns and questions, doubts or does not agree when pointed out by therapist. Seems to lack interest in identifying maladaptive patterns. No awareness/insight. Mention of anxiety or inhibition without understanding of maladaptive pattern is rated here.

1-10 **No awareness of maladaptive behavior patterns, anxieties or feelings**. Does not see maladaptive patterns on own nor when therapist points it out. Upper level: No apparent interest in recognizing maladaptive responses. Lower level: Disagrees or becomes angry/belligerent when maladaptive responses are pointed out. No awareness/insight or resists awareness/insight. No mention of anxiety or inhibition.

Appendix I - Achievement of Therapeutic Objectives Scale: ATOS Scale – Affect Experiencing Scale

INTENSITY OF AROUSAL OF ADAPTIVE AFFECT: IN-SESSION BODILY EXPOSURE TO PHOBIC AFFECTS 27 Aug 08

STDP: Affect Experiencing: Degree of Bodily Arousal of Adaptive Affects (to desensitize Affect Phobias)
CBT: Affect arousal is not a primary focus – and may or may not be present
DBT: Mindfulness and management of internal reactions. Emotional modulation vs reactivity. Affect tolerance.

MAIN COMPONENTS:

1. Intensity of arousal of **adaptive affect** (rate **peak** degree of arousal for anger, grief, or excitement and the **deepest** arousal for joy, closeness, or self feelings). Base the rating on intensity of inner affective arousal as shown in vocal tone, facial expression, non-verbal behavior/movement or charged verbal statements. This is not a rating of intensity of interpersonal expression, which would be rated as Affect Expression/New Learning.
2. Duration of the affective arousal (a few seconds to many minutes).
3. Relief in the experience of the feeling.

NOTE: This scale does **not** a measure **inappropriate** or regressive affective arousal, which is defensive.

BRIEF OVERVIEW OF DEGREE OF INTENSITY OF AFFECTIVE AROUSAL (IN-SESSION EXPOSURE TO PHOBIC AFFECTS)

81-100 - **Full experience** of emotion, well-integrated. Full grief, full openness/tenderness/trust, full justifiable outrage, full joy, etc.
61-80 - **Strong experience** of emotion. Strong affect quickly cut off **or** sustained but a little held back.
41-60 - **Moderate experience** of emotion. Some grief, some anger, some openness/tenderness/trust/care, etc. Some holding back.
21-40 - **Low experience** of emotion. Beginning indications of grief, anger, openness/tenderness/trust/care/joy, etc. Much holding back.
1-20 - **Little/no physiological experience** of emotion in facial expression, verbal report, tone of voice, body movement. Flat, dull, bland presentation.

91-100 **Full and complete affective arousal**. Full and vivid feeling, imagery, and memories sustained over several minutes (ebbing and flowing); e.g. full sobbing, with other affects, e.g. murderous but justifiable outrage, openness/care/tenderness/joy/trust deeply felt as shown in face, vocal tone or body. Excellent ability to modulate or control affect, and integrate it with other affects that balance and enrich the experience, e.g. rage with compassion, tenderness with limit-setting. Full relief and resolution.

81-90 **Very strong affective arousal**. Very strong feeling, imagery, and memories, well sustained (ebbing and flowing) just slightly inhibited or interrupted by other affects as shown in face, vocal tone or body. The affect is partially integrated with other affects, e.g. rage with some compassion; care/trust with limits. Very strong but not full relief.

71-80 **Strong affective arousal**. Strong feeling either sustained (ebbing and flowing) with a little holding back **or** strong feeling that slowly diminishes or is interrupted by another affect; e.g., strong bursts of sobs or anger, strong expressions of caring/tenderness as shown in face, vocal tone or body. Minimal integration with other feelings. Imagery or memories with strong emotional content. Strong relief

61-70 **High-moderate affective arousal**. Much feeling, somewhat sustained (ebbing and flowing) with some holding back **or** quickly cut off. e.g., bursts of crying or anger, much caring/tenderness/warmth/trust as shown in face, vocal tone or body. Only beginning indications of integration with other affects. Imagery or memories with much emotional content. Much relief.

51-60 **Moderate affective arousal**. Moderate feeling; moderate duration/moderate holding back, e.g. tearing up, moderate anger, some tender feelings as shown in face/vocal tone/body. Imagery or memories with moderate emotional content. Moderate relief.

41-50 **Low-moderate affective arousal**. Mild feeling with much holding back shown in face, vocal tone or body, e.g. briefly tears up, raises voice a little in anger, or says a few tender words for short duration, speaks openly. Imagery or memories with some emotional content. Some relief.

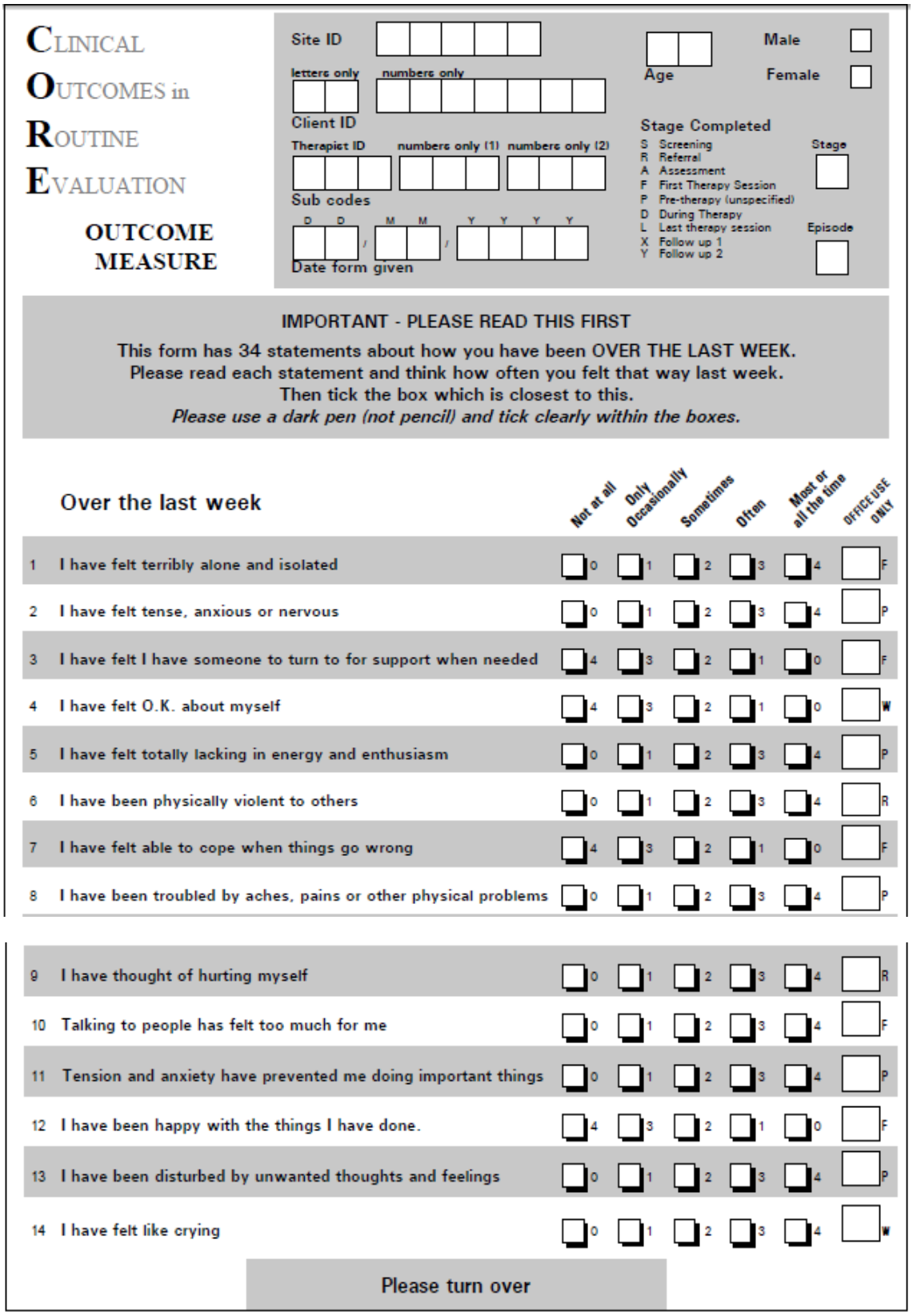
31-40 **Low affective arousal**. Low, quickly passing experience of feeling shown in face, vocal tone or body; e.g. clenching fist, sighs, grimaces, choking up, slight sadness/anger/care for self but quickly stopped. Imagery or memories with low emotional content but appears very restrained/held back/constricted. Very little relief.

21-30 **Very low affective arousal.** Minimal or barely visible/audible signs of feeling of short duration shown in face, vocal tone or body. May report slight change in internal bodily state. Imagery/memories have very low expression of feeling. Almost no relief.

11-20 **No affective arousal, *but* bland verbal report of feeling**. Almost no expression on face. Flat/dull/bland tone of voice, stiff or barely moving body. Patient may sense a change in internal bodily state, but is unsure whether it is a feeling or not. Only bland, unfeeling report of images or memories with emotional content. No relief.

1-10 **No affective arousal. No report of feeling**. No observable experience of feeling on face. Flat/dull/bland tone of voice. Stiff, unmoving body. No imagery or memories with emotional content. Emotionally numb and/or tense. Self hate/negation. No relief.

Appendix J - Clinical Outcome in Routine Evaluation – Outcome Measure



CLINICAL
OUTCOMES in
ROUTINE
EVALUATION

OUTCOME MEASURE

Site ID

letters only | numbers only

Client ID

Therapist ID | numbers only (1) | numbers only (2)

Sub codes

D D / M M / Y Y Y Y

Date form given

Age

Male

Female

Stage Completed

S Screening
R Referral
A Assessment
F First Therapy Session
P Pre-therapy (unspecified)
D During Therapy
L Last therapy session
X Follow up 1
Y Follow up 2

Stage

Episode

IMPORTANT - PLEASE READ THIS FIRST

This form has 34 statements about how you have been OVER THE LAST WEEK.
Please read each statement and think how often you felt that way last week.
Then tick the box which is closest to this.
Please use a dark pen (not pencil) and tick clearly within the boxes.

Over the last week	Not at all	Only Occasionally	Sometimes	Often	Most or all the time	OFFICE USE ONLY
1 I have felt terribly alone and isolated	0	1	2	3	4	F
2 I have felt tense, anxious or nervous	0	1	2	3	4	P
3 I have felt I have someone to turn to for support when needed	4	3	2	1	0	F
4 I have felt O.K. about myself	4	3	2	1	0	W
5 I have felt totally lacking in energy and enthusiasm	0	1	2	3	4	P
6 I have been physically violent to others	0	1	2	3	4	R
7 I have felt able to cope when things go wrong	4	3	2	1	0	F
8 I have been troubled by aches, pains or other physical problems	0	1	2	3	4	P
9 I have thought of hurting myself	0	1	2	3	4	R
10 Talking to people has felt too much for me	0	1	2	3	4	F
11 Tension and anxiety have prevented me doing important things	0	1	2	3	4	P
12 I have been happy with the things I have done.	4	3	2	1	0	F
13 I have been disturbed by unwanted thoughts and feelings	0	1	2	3	4	P
14 I have felt like crying	0	1	2	3	4	W

Please turn over

Over the last week	Not at all	Only Occasionally	Sometimes	Often	Most or all the time	OFFICE USE ONLY
15 I have felt panic or terror	0	1	2	3	4	P
16 I made plans to end my life	0	1	2	3	4	R
17 I have felt overwhelmed by my problems	0	1	2	3	4	W
18 I have had difficulty getting to sleep or staying asleep	0	1	2	3	4	P
19 I have felt warmth or affection for someone	4	3	2	1	0	F
20 My problems have been impossible to put to one side	0	1	2	3	4	P
21 I have been able to do most things I needed to	4	3	2	1	0	F
22 I have threatened or intimidated another person	0	1	2	3	4	R
23 I have felt despairing or hopeless	0	1	2	3	4	P
24 I have thought it would be better if I were dead	0	1	2	3	4	R
25 I have felt criticised by other people	0	1	2	3	4	F
26 I have thought I have no friends	0	1	2	3	4	F
27 I have felt unhappy	0	1	2	3	4	P
28 Unwanted images or memories have been distressing me	0	1	2	3	4	P
29 I have been irritable when with other people	0	1	2	3	4	F
30 I have thought I am to blame for my problems and difficulties	0	1	2	3	4	P
31 I have felt optimistic about my future	4	3	2	1	0	W
34 I have hurt myself physically or taken dangerous risks with my health	0	1	2	3	4	R

THANK YOU FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE

Total Scores

Mean Scores
(Total score for each dimension divided by number of items completed in that dimension)

(W)	(P)	(F)	(R)	All items	All minus R

Appendix K - Working Alliance Inventory Therapist Version

Working Alliance Inventory-Therapist
Short Form (Therapist)

Counselor ID# _____ **Client Case#** _____ **Date** _____

Measurement Point (circle one): **1st Week** **3rd Week**

Instructions:
On the following page there are sentences that describe some of the different ways you might think or feel about your client.

As you read the sentences mentally insert the name of your client in place of _____in the text.

Below each statement there is a seven point scale:

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

If the statement describes the way you *always* feel (or think) circle the number 7; if it never applies to you, circle the number 1. Use the numbers in between to describe the variations between these extremes.

Work quickly, your first impressions are the ones we would like to see.

PLEASE DON'T FORGET TO RESPOND TO EVERY ITEM.

Thank You!

1. _____ and I agree about the steps to be taken to improve his situation.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

2. My client and I both feel confident about the usefulness of our current activity in counseling.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

3. I believe _____ likes me.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

4. I have doubts about what we are trying to accomplish in counseling.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

5. I am confident in my ability to help _____.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

6. We are working towards mutually agreed upon goals.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

7. I appreciate _____ as a person.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

8 We agree on what is important for _____ to work on.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

9. _____ and I have built a mutual trust.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

10. _____ and I have different ideas on what his real problems are.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

11. We have established a good understanding between us of the kind of changes that would be good for _____.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

12. _____ believes the way we are working with her problem is correct.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

Appendix L - Working Alliance Inventory Client Version

Working Alliance Inventory-Client
Short Form (Client)

Client Case# _____ **Counselor ID#** _____ **Date** _____

Measurement Point (circle one): **1st Week** **3rd Week**

Instructions:
On the following page there are sentences that describe some of the different ways you might think or feel about your counselor.

As you read the sentences mentally insert the name of your counselor in place of _____in the text.

Below each statement there is a seven point scale:

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

If the statement describes the way you *always* feel (or think) circle the number 7; if it never applies to you, circle the number 1. Use the numbers in between to describe the variations between these extremes.

Work quickly, your first impressions are the ones we would like to see.

PLEASE DON'T FORGET TO RESPOND TO EVERY ITEM.

Thank You!

1. _____ and I agree about the things I will need to do in counseling to help improve my situation.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

2. What I am doing in counseling gives me new ways of looking at my problem.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

3. I believe _____ likes me.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

4. _____ does not understand what I am trying to accomplish in counseling.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

5. I am confident in _____ 's ability to help me.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

6. _____ and I are working towards mutually agreed upon goals.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

7. I feel that _____ appreciates me.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

8. We agree on what is important for me to work on.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

9. _____ and I trust one another.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

10. _____ and I have different ideas on what my problems are.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

11. We have established a good understanding of the kind of changes that would be good for me.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

12. I believe the way we are working with my problem is correct.

1	2	3	4	5	6	7
Never	Rarely	Occasionally	Sometimes	Often	Very Often	Always

Appendix M – Regression analyses performed when controlling for WAI-S(T) and WAIT-S(C)

Regression analyses for P1 and P2 analysed as a group (based on 1000 bootstraps)

One regression analysis was conducted to examine the extent to which peak affect and insight after peak affect explained variance in sessional outcomes as measured by the BDI for P1 and P2 analysed collectively, after controlling for the WAI-S(T) scores.

The WAI-S(T) scores were entered in the first block as controlled variables, peak affect scores were entered in the second block and post-peak affect insight in the third block. The variance in the BDI scores explained by the WAI-S(T) scores was not significant R^2 = .057, $F(1, 26) = 1.577$, p = .220. The addition of affect scores at step 2 did not produce a significant increase in the variance explained, ΔR^2 = .109, $F(1, 25) = 3.273$, p = .082. The addition of insight at step 3 resulted in a significant increment in the amount of variance explained, ΔR^2 = .188, $F(1, 24)$ = 7.001, p = .014. The paths from affect to sessional outcome (B = -.149, SE = .053, p = .008) and from post-peak insight to session outcome (B = -.352, SE = .110, p = .003) were both significant.

One regression analysis was conducted to examine the extent to which peak affect and insight after peak affect explained variance in sessional outcomes as measured by the CORE for P1 and P2 analysed collectively, after controlling for the WAI-S(T) scores.

The WAI-S(T) scores were entered in the first block as controlled variables, peak affect scores were entered in the second block and post-peak affect insight in the third block. The variance in the CORE scores was significantly explained by the WAI-S(T) scores, R^2 = .292, F(1, 26) = 10.712, p = .003. The addition of insight at step 3 resulted in a significant increment in the amount of the variance explained, ΔR^2 = .159, F(1, 24) = 7.712, p = .010. The paths from affect to sessional outcome (B = -.094, SE = .042, p = .035) and from post-peak insight to session outcome (B = -.268, SE = .091, p = .004) were both significant.

One regression analysis was conducted to examine the extent to which peak affect and insight after peak affect explained variance in sessional outcomes as measured by the CORE for P1 and P2 analysed collectively, after controlling for the WAI-S(C) scores.

The WAI-S(C) scores were entered in the first block as controlled variables, peak affect scores were entered in the second block and post-peak affect insight in the third block. The variance in the CORE scores was significantly explained by the WAI-S(C) scores, R^2 = .288, F(1, 26) = 10.499, p = .003. The addition of affect at step 2 produced a significant increment in the variance explained, ΔR^2 = .104, F(1, 25) = 4.291, p = .049. The addition of insight at step 3 resulted in a significant increment in the amount of the variance explained, ΔR^2 = .124, F(1, 24) = 6.172, p = .020. The paths from affect to sessional outcome (B = -.116, SE = .045, p = .019) and from post-peak insight to session outcome (B = -.235, SE = .110, p = .021) were both significant.

Regression analyses for P1 (based on 1000 bootstraps)

One regression analysis was conducted to examine the extent to which peak affect and change in insight explained variance in sessional outcomes as measured by the BDI for P1, after controlling for the WAI-S(T) scores.

The WAI-S(T) scores were entered in the first block as controlled variables, peak affect scores were entered in the second block and insight change scores in the third block. The variance in the BDI scores explained by the WAI-S(T) scores was not significant, R^2 = .235, $F(1, 10) = 3.069$, p = .110). The addition of affect at step 2 did not produce significant increase in variance explained, ΔR^2 = .018, $F(1, 9) = .219$, p = .651. The addition of insight change scores at step 3 did not result in a significant increment in the amount of variance explained, ΔR^2 = .161, $F(1, 8) = 2.204$, p = .176. The paths from affect to sessional outcome (B = .007, SE = .193, p = .928) and from insight change to session outcome (B = -.369, SE = 1.121, p = .383), both were not significant.

One regression analysis was conducted to examine the extent to which peak affect and change in insight explained variance in sessional outcomes as measured by the CORE for P1, after controlling for the WAI-S(T) scores.

The WAI-S(T) scores were entered in the first block as controlled variables, peak affect scores were entered in the second block and insight change scores in the third block. WAI-S(T) scores explained a significant proportion of variance in the

CORE scores (R^2 = .346, F(1, 10) = 5.288, p = .044). The addition of affect at step 2 did not produce a significant increase in the variance explained, ΔR^2 = .152, F(1, 9) = 2.719, p = .134. The addition of insight change scores at step 3 did not result in a significant increment in the amount of variance explained, ΔR^2 = .027, F(1, 8) = .449, p = .522. The paths from affect to sessional outcome (B = -.087, SE = .113, p = .303) and from insight change to session outcome (B = -.128, SE = -.151, p = .660), both were not significant.