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University of Sheffield

Department of Clinical Psychology

Is the experiencing of affect therapeutic? An investigation into the relationship between affect experiencing, degree of inhibition and distress in Intensive Short-Term Dynamic Psychotherapy

By Alison Salvadori
Declaration

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

The results, discussions and conclusions presented herein are identical to those in the printed version. This electronic version of the thesis has been edited solely to ensure conformance with copyright legislation and all excisions are noted in the text. The final awarded and examined version is available for consultation via the University library.
Report Structure

The literature review has been prepared according to the guidance of the *Clinical Psychology Review* journal. The research report has been prepared according to the guidance of the *British Journal of Clinical Psychology*. Copies of the guidance to authors for each journal and the university letter of approval of journal choice are provided in Appendix 1.

Word count

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Abstract

This thesis consists of three sections: a literature review, the research report and the appendices.

Literature review

The literature review explores the question ‘how is in-session experiencing of affect considered therapeutic in psychodynamic and experiential psychotherapies?’ The approaches used to research affect processes in psychotherapy are explored and the strengths and limitations of these methods illustrated. The current evidence on the ways in which in-session expression of affect is considered therapeutic in experiential and psychodynamic therapies is fully appraised.

Research report

This study investigates the relationship between affect experiencing, degree of inhibition and distress in Intensive Short-Term Dynamic Psychotherapy (ISTDP). A single case series design was used. Data was obtained from 6 participants who each received 20 sessions of ISTDP. Excerpts from video recordings of each session were coded for peak affect and average inhibition. Participants completed weekly self-report measures of symptom distress so that the relationships between in-session affect experiencing, inhibition, and ongoing distress could be determined. The ratio of affect experiencing to degree of inhibition (referred to as affective capacity) increased over the course of therapy in three participants. Increased affective capacity was associated with a reduction in symptom distress in those participants who recovered. A positive correlation
was found between affective capacity and working alliance in three participants. The results offer tentative support for the emphasis in ISTDP on mobilizing unconscious emotions.

**Appendices**

Relevant documentation pertaining to the project is provided, in addition to the presentation of additional information supplementing the literature review and the research report.
Acknowledgements

I would like to express my sincere thanks to my supervisors Professor Gillian Hardy and Dr Joel Town for inspiring me and for their encouragement and support with this project. I would also like to thank Dr Adrian Simpson for statistical consultation.

Thanks also to Anna Nattrass for coding the material and for her commitment to this project.

I would like to thank my research participants for their courage and generosity in agreeing to take part in this study.

Lastly, I would like to say a special thank you to my parents, my husband Patrick and my friend Steve for their boundless love and support.
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Section 1

Literature Review
How is In-Session Experiencing of Affect Considered Therapeutic in Psychodynamic and Experiential Psychotherapies?

Abstract

There continues to be much debate in the literature on the role of affect expression in psychodynamic and experiential therapies. The aim of this review was to examine approaches used to investigate affect in psychotherapy process research and the resulting evidence on the ways in which it is considered therapeutic. Nineteen studies were reviewed and showed that three main approaches had been taken to studying the role of affect experiencing. The studies are classified as either descriptive, hypothesis testing or examining theories of change. Research aims and methodologies varied considerably across these domains but similar methodological issues were encountered in all types of studies. These primarily concerned the way in which the emotion variable was operationalised and measured. It is possible to draw some tentative conclusions. Most of the studies suggest that in-session expression of affect is associated with good outcome. It appears likely that it is the quality rather than the quantity of affect that is the salient factor and that a number of complex interactions involving both cognitive and affective processes are involved in reprocessing emotional material to bring therapeutic benefit. Further research is required to explore a psychodynamic account of affect experiencing.

Key Words

Affect experiencing, psychodynamic therapy, experiential therapy, change processes, process-outcome research.
A rich body of research indicates that many forms of psychotherapy can lead to therapeutic change (e.g. Lambert, 2004). One of the important questions researchers are now addressing is how psychotherapy leads to change (Kazdin, 2009). Early catharsis theorists considered the expression of emotion to be beneficial. Psychological distress was thought to be caused by a build-up of tension, arising from unexpressed emotion associated with repressed memories (Breuer & Freud, 1895/2004). It is now generally understood that, rather than being brought about by the physical release of emotion, therapeutic change requires a combination of cognitive and affective processes (Whelton, 2004).

Research indicating a relationship between patient experiencing and outcome has come mainly from client-centered therapy (Orlinsky, Grawe, & Parks, 1994). Cognitive-behavioural approaches have tended to show less interest in emotion, focusing more on the role that negative cognitions have on mood and patterns of behaviour (e.g. Beck, Rush, Shaw, & Emery, 1979). However, an interest in the role of emotion in therapy now spans all therapeutic modalities, for example; Castonguay, Goldfried, Wiser, Raue, and Hayes (1996) found that patient’s emotional engagement in cognitive therapy for depression was predictive of outcome.

In terms of the focus of the therapeutic endeavour, psychodynamic and experiential therapies may be distinguished from cognitive-behavioural approaches by having a greater focus on the patient achieving emotional insight. From a psychodynamic perspective, the patient is thought to gain mastery over previously suppressed material by being exposed to and
experiencing emotion (Blagys & Hilsenroth, 2000). This somatic experiencing of emotion is a particular focus of short-term psychodynamic approaches (Malan & Coughlin Della Selva, 2006). In experiential therapies (such as Gestalt, client-centred and process-experiential approaches) emotion is regarded as a valued aspect of experience (Greenberg & Safran, 1989). Contemporary experiential theorists suggest that emotion-schematic experiences need to be activated in therapy, so that information contained within them can be accessed and processed in consciousness (Greenberg, Auszra, & Herrmann, 2007).

Given the centrality of affect and emotional processing in psychodynamic and experiential approaches, research produced from within these traditions will be the focus of this literature review. Although these therapeutic approaches consider emotional experiencing to play a vital role in therapeutic change, the mechanisms of action that account for this change are still unclear (Greenberg & Safran, 1989). Process research aims to address this knowledge deficit and may be defined as the study of “the content of psychological therapy sessions and the mechanisms through which patient change is achieved, both in single sessions and across time” (Llewelyn & Hardy, 2001, p. 2). Process research has four main aims: (a) to understand the mechanisms of change in psychotherapy, in order to provide effective treatments and alleviate patient distress, (b) to improve the quality of therapy by emphasising aspects or techniques that have proven effective, (c) to contribute to the development of theories, and (d) to assist in the development of effective training (Hardy & Llewelyn, 2009).
Process research into the role of affect experiencing is complicated by difficulties in defining and operationalizing the construct. Emotion is a somewhat imprecise concept, which complicates its definition and measurement as a research variable. Definitions of emotion and affect vary across researchers and the terms tend to be used interchangeably. Fredrickson (2001) differentiates between the two however, describing emotions as fairly brief response tendencies that follow an individual’s conscious or unconscious appraisal of the meaning of an event. Affect is seen as a more general concept referring to consciously accessible feelings that are longer lasting and objectless rather than being about personally meaningful situations. Kennedy-Moore and Watson (2001) distinguish between emotional arousal, which relates to physiological aspects; experience, the patient’s subjective sense of the emotion and expression which involves verbal and non-verbal behaviours. These distinctions will be used in this review.

This review integrates the findings from studies that have explored the process of in-session emotional experiencing. The current review has two aims: -

- To explore approaches to researching affect in psychotherapy process research and to illustrate the strengths and limitations of these methods.
- To consider the current evidence on the ways in which in-session expression of affect is considered therapeutic in experiential and psychodynamic therapies.
Method

A comprehensive search was made in January 2010 of the PsychINFO, MEDLINE and CINAHL databases from the 1950s until the present. The strategy utilised terms covering the two broad concepts of ‘psychodynamic/experiential psychotherapy’ and ‘emotion’ in abstract and title fields (detailed in Appendix 2a). In addition, keyword, abstract and methodology fields were searched by entering the names of process measures for emotion. A search was also made by inputting the names of leading authors. The reference lists of review articles and meta-analyses on emotion were scrutinised for potential studies and checks made on the web sites of key authors and organisations. Reference lists of identified papers were checked for additional relevant studies.

The criteria for the inclusion of studies were:-

- Studies involve experiential and/or psychodynamic therapies.
- Studies feature actual treatments of participants with personal and/or emotional problems, as opposed to analogue therapies with students.
- Studies measure a feature of the therapeutic process concerned with the expression or experiencing of emotion and quantitatively assess variations in emotion in relation to outcome.
- Outcome is defined as being evaluated outside sessions, rather than in-session impacts.
- Studies are written in English and have been published.

The exclusion criterion was:

- Studies that focused solely on cognitive/behavioural therapies.
There is no established tool to assess the strengths and limitations of process studies. Therefore, a tool was devised (Appendix 2b) that was partly derived from recommendations for appraising process-outcome research by Cahill et al. (2009); Fitzpatrick, Davey, Buxton, and Jones (1998); and Hill, Nutt, and Jackson (1994). Two broad areas were evaluated, these concerned the ways in which the process and outcome components were operationalised and appraised. The main focus was the way in which the affect experiencing process was measured. The research was evaluated for the number, reliability and validity of the tools used to measure the affect as well as the perspective from which the variable was measured (e.g. participant, observer). The channel of input for the data was established (e.g. transcript, video) and the unit of measure was ascertained (e.g. every moment, random segment). Sources of bias such as order effects and knowledge of the research aims by those coding the process were also accounted for. Outcome measurement was appraised in a similar manner. A number of miscellaneous items were also taken into account during the quality appraisal process. These included whether the impact of therapeutic alliance and the participants’ baseline levels of affect experiencing had been considered. A score was awarded for the degree to which each study attained each of the criteria; scores were then totalled to give an overall score. The studies that scored a higher number of points in total were considered methodologically stronger than those that scored relatively fewer. It is acknowledged that this method constitutes a practical heuristic rather than a scientifically robust tool.
Results

Llewelyn and Hardy (2001) suggest that process studies may be usefully classified into one of three broad types using a Khunian model: (a) Descriptive studies, which describe behaviours within therapy sessions, (b) Hypothesis testing, those which investigate links between an intervention or process condition and outcome, and (c) Change theory linked research, which examines how change occurs. Nineteen studies met the inclusion criteria for the review. These are summarised in Table 1, which also indicates the quality score each was awarded. Full details of the research studies are included in Appendix 2c. Details of the quality appraisal profiles and scores allocated are given in Appendix 2d. The methods that these studies employed and the resulting evidence are described below, they are ordered according to which of these three categories of process studies they fit into.
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<tr>
<th>Author</th>
<th>Aim of study</th>
<th>Design</th>
<th>Findings</th>
<th>Score</th>
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<td><strong>Descriptive studies</strong></td>
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</tr>
<tr>
<td>Bierenbaum et al. (1976)</td>
<td>To explore the effects of varying session length and frequency in brief emotive therapy.</td>
<td>Quasi-experiment with 3 conditions:</td>
<td>Patients in the 1-hour group produced the most catharsis. Amount of catharsis did not correlate with outcome.</td>
<td>7</td>
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<tr>
<td></td>
<td></td>
<td>1. 2 x 30 mins therapy per week</td>
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<td></td>
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<td>2. 1 hr once per week</td>
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<tr>
<td></td>
<td></td>
<td>3. 2 hrs every other week</td>
<td></td>
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<tr>
<td>Taurke et al. (1990)</td>
<td>To explore the change in affect/defence ratio from early to late sessions.</td>
<td>Compared high outcome and low to average outcome cases</td>
<td>Found a relationship between an increase in the ratio of affect expressed to defences expressed and good outcome.</td>
<td>4.5</td>
</tr>
<tr>
<td>Bridges (2006)</td>
<td>To explore patterns of emotional experiencing and expression.</td>
<td>Case series</td>
<td>Each participant displayed an individual pattern of emotional arousal, expression, experience and processing.</td>
<td>8</td>
</tr>
<tr>
<td><strong>Hypothesis testing - specific techniques</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Kiesler (1971)</td>
<td>To explore patient experiencing and successful outcome.</td>
<td>Compared more successful and less successful cases</td>
<td>More successful participants scored higher in experiencing than less successful, change in experiencing unrelated to outcome however.</td>
<td>8</td>
</tr>
<tr>
<td>Nichols (1974)</td>
<td>To explore the impact of catharsis on outcome.</td>
<td>Randomised controlled trial with 2 conditions:</td>
<td>The emotive group experienced more catharsis and high catharsis participants changed more on behavioural goals.</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Emotive treatment group</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>2. Non-emotive treatment group</td>
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<tr>
<td>Coombs et al. (2002)</td>
<td>To explore the expression of patient emotion and therapist stance and the relationship of these to outcome.</td>
<td>Part of large randomised controlled trial, 4 conditions:</td>
<td>The collaborative exploration of emotion was significantly related to positive outcome.</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Interpersonal Therapy</td>
<td></td>
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</tr>
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<td></td>
<td></td>
<td>2. Cognitive Behavioural Therapy (CBT)</td>
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<td>3. Imipramine</td>
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<th>Methodology</th>
<th>Findings</th>
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<tr>
<td>Pos et al. (2003)</td>
<td>To explore the importance of early and late emotional processing to change.</td>
<td>Correlational study: Examined depth of emotional processing in relation to outcome at different stages in the therapy</td>
<td>Early experiencing related to improvements in symptomology. Late emotional processing was independently predictive of improvement.</td>
</tr>
<tr>
<td>Goldman et al. (2005)</td>
<td>To explore the depth of emotional experiencing and outcome.</td>
<td>Correlational study: Examined outcome in relation to depth of experiencing of key themes in early and later sessions</td>
<td>Increase in levels of experiencing across therapy was strongest predictor of change. Depth of experiencing on core themes in the last half of therapy was predictive of reduced distress.</td>
</tr>
<tr>
<td>Missirlian et al. (2005)</td>
<td>To explore the relationship between emotional arousal, perceptual processing and alliance.</td>
<td>Correlational study: Examined outcome in relation to emotional arousal and perceptual processing strategies at early, middle and late phases of therapy</td>
<td>Emotional arousal predictive of reduction in symptoms and increased self-esteem but only with respect to arousal in middle phase of therapy.</td>
</tr>
<tr>
<td>Watson and Bedard (2006)</td>
<td>To compare emotional processing in different therapeutic approaches.</td>
<td>Compared good outcome and poorer outcome cases in patients undergoing CBT or experiential therapy</td>
<td>Good outcome in both groups had higher levels of emotional processing. Processing increased from beginning to midpoint of therapy.</td>
</tr>
<tr>
<td>Hypothesis testing - patient characteristics</td>
<td>To investigate the relationship between expectations, experiencing and change.</td>
<td>Correlational study: Examined the degree of change expected, attitude toward therapy and the process of experiencing in relation to outcome</td>
<td>A negative relationship was found between levels of experiencing and perceived improvement.</td>
</tr>
<tr>
<td>Hypothesis testing - timing and context of interventions</td>
<td>To examine the relationship of patient-therapist interaction to outcome.</td>
<td>Correlational study: Therapist interventions compared with frequency of patient affective or defensive behaviour</td>
<td>Patient-therapist interpretations followed by affect related to improvement. Interventions followed by defensive behaviour correlated negatively with outcome.</td>
</tr>
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### Theories of change

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<th>Objective</th>
<th>Methods</th>
<th>Findings</th>
<th>Score</th>
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<tr>
<td>Greenberg and Webster (1982)</td>
<td>To investigate the process of conflict resolution (including expression of feeling component) to outcome.</td>
<td>Compared resolvers and non-resolvers</td>
<td>Deepening of experiencing was one of the elements characterising a conflict resolution performance.</td>
<td>7</td>
</tr>
<tr>
<td>Greenberg and Foerster (1996)</td>
<td>To explore in-session performances involved in resolving bad feelings toward a significant other.</td>
<td>Compared resolvers and non-resolvers</td>
<td>Four performance components, including intense expression of feeling, distinguished between participants who successfully resolved and those who did not.</td>
<td>8.5</td>
</tr>
<tr>
<td>Watson (1996)</td>
<td>To explore the relationship between vivid description, emotional arousal and in-session resolution of problematic reactions.</td>
<td>Compared resolution sessions and non-resolution sessions</td>
<td>Found that vivid description promoted emotional arousal. Resolution sessions followed this pattern.</td>
<td>8.5</td>
</tr>
<tr>
<td>Watson and Greenberg (1996)</td>
<td>To explore if problem resolution is related to depth of experiencing.</td>
<td>Correlational study: Looked at changes in and post session and related them to outcome</td>
<td>Degree of problem resolution correlated with depth of experiencing.</td>
<td>8</td>
</tr>
<tr>
<td>Greenberg and Malcolm (2002)</td>
<td>To explore the process of resolution of ‘unfinished business’.</td>
<td>Compared resolvers and non-resolvers</td>
<td>Degree of emotional arousal discriminated between resolvers and non-resolvers.</td>
<td>9.5</td>
</tr>
<tr>
<td>Greenberg et al. (2007)</td>
<td>To explore the relationship among emotional productivity, emotional arousal and outcome.</td>
<td>Compared better outcome and poorer outcome cases</td>
<td>No significant differences in degree of expressed emotion between groups. Better outcome patients expressed more productive emotions.</td>
<td>9.5</td>
</tr>
<tr>
<td>Greenberg et al. (2008)</td>
<td>To examine the emotional process of forgiveness.</td>
<td>Randomised controlled trial, 2 conditions: 1. Emotion-Focused Therapy 2. Psychoeducation</td>
<td>In-session emotional arousal did not relate to outcome in either group.</td>
<td>2</td>
</tr>
</tbody>
</table>

*Note. Full details of the studies are provided in Appendix 2c. The scores are derived from the quality appraisal profiles for each study, details of which are provided in Appendix 2d.*
Descriptive Studies

Three of the studies could be classified as descriptive studies (Table 1). Bridges (2006) explored patterns of emotional experiencing using three clinical vignettes. Each participant was found to display an individual pattern of emotional arousal, expression, experiencing and processing. Bridges included operational measures of four different components of emotion: arousal which relates to physiological aspects of emotion and was measured using wrist-watch cardiac monitors; experience, the participant’s subjective sense of the emotion; expression which involves verbal and non-verbal behaviours and processing which concerns the integration of emotion and cognition. The cases were selected and presented to describe how different patterns of emotion were related to outcome. The author considered that the two participants who obtained resolution showed emotional congruence in terms of expression, self-report and cardiovascular arousal. Despite its size ($N = 3$), this study had one notable methodological strength when compared to the other two descriptive studies. Emotion was measured in four different ways and from three different perspectives: a patient rating (one of only two studies to do so), observer ratings and a physiological measure.

Bierenbaum, Nichols, and Schwartz (1976) explored the effects of varying session length and frequency in brief emotive therapy. Participants were seen in one of three ways: for 30 minutes twice a week, for one hourly session per week, or for one two-hour session once a fortnight. Participants in the one-hour a week group produced the most catharsis and improved most on interview. The authors found that emotional catharsis only correlated with outcome in this group of participants. Bierenbaum et al. failed to replicate the findings of an earlier study,
which found a positive correlation between high emotional discharge and high personal satisfaction (Nichols, 1974). There were some methodological difficulties however; catharsis was measured from audiotapes and thus without non-verbal behaviour, which is important in recognising affect. In addition, thirteen hours of tapes were described as being lost to mechanical difficulties.

The last of the descriptive studies signified a shift in research focus. Taurke et al. (1990) suggested that if specific factors, such as patient affect were linked to outcome, they were likely to be operating through complex interactions. Therefore this study looked at two components of psychotherapy: affect and defence. Changes in the ratio of these behaviours were examined during the course of therapy. The researchers found that the ratio of affect expressed to defences expressed was predictive of improvement. They suggest that the findings support the theory behind psychodynamic therapy, i.e. that it is beneficial for patients to experience feelings usually warded off by defences. This study used video recordings, so non-verbal expressions were used in the measurement of affect. However, it was considered the weakest in the descriptive group of studies because only one session from each quartile of therapy was coded. This could mean that pertinent material was overlooked.

**Summary.**

These studies showed different ways of measuring affect, all using video or audio taped material. Results from these studies suggest that people may display individual patterns of emotional discharge and that this discharge might not be related to outcome. The ratio of affective to defensive behaviours was linked to
good outcome. As indicated in Appendix 2d, the Bridges (2006) study was considered the highest in terms of quality ratings but none of these studies took into account the participants’ baseline ability to experience emotion, or the impact of the therapeutic alliance. These studies indicate the complex relationship between affect experiencing and outcome.

Hypothesis Testing

Nine studies investigated the hypothesised links between process variables and outcome (Table 1). These are divided into three aspects of therapy.

Specific techniques.

Kiesler (1971) explored patient experiencing and outcome. He found that more successful participants scored higher in experiencing than those with less successful outcomes. Change in the level of experiencing over the course of therapy was unrelated to outcome however. Although affect was coded from every psychotherapy session, only one random segment of four-minutes of audiotape from the latter half of every session was used and important material may therefore have been missed.

Nichols (1974) compared the experience of catharsis in an emotive and a non-emotive treatment group. As in the Bierenbaum et al. (1976) study, the seconds of catharsis in each moment of every therapy session were calculated. In contrast to the results of the Bierenbaum et al. study, the amount of catharsis was found to correlate with outcome. The emotive group was found to experience more catharsis and high catharsis participants changed more on behavioural
goals and expressed higher personal satisfaction. Although every moment of each therapy session was appraised for evidence of ‘catharsis’ this term was loosely defined and included signs of laughing, shouting, shaking and trembling. The discrepancies between the findings of these two studies may be attributed to methodological differences. As Appendix 2d indicates, the Nichols study was considered to be of higher quality than the Bierenbaum et al. study. Nichols used two process measures rather than one and increased the number of outcome measures from three to four, two of which employed semi-structured interviews.

Experiential therapies such as those developed by Greenberg, Watson, and Lietaer (1998) assume that deeper emotional processing is the mechanism through which improvement in symptomology is achieved. The next three studies tested hypotheses relating to the depth of emotional experiencing or processing at different points in therapy (Goldman, Greenberg, & Pos, 2005; Missirlian, Toukmanian, Warwar, & Greenberg, 2005; Pos, Greenberg, Goldman, & Korman, 2003).

Pos et al. (2003) explored the importance of early and late emotional processing to change. The participants’ level of emotional processing in the second session was significantly related to improvements in depressive symptomology and increased self-esteem, no improvement was noted in the extent of participants’ interpersonal problems however. Late emotional processing was found to be independently predictive of outcome. The authors suggest that patients may be able to learn to attend to and process emotions over the course of therapy.
However, this study just measures early and then late emotional processing, rather than tracking the change process across various stages of therapy.

Missirlian et al. (2005) explored outcome in relation to emotional arousal and perceptual processing strategies in early, middle and late phases of therapy. Emotional arousal was shown to be predictive of reduction in symptoms and increased self-esteem but only with respect to arousal at mid-therapy. The authors caution that their results show that the relationship between process and outcome variables depends on when in the therapy they are being measured. The results also suggested that the participants’ capacity for emotional arousal in the early phase was not predictive of outcome. This finding suggests that therapy might help patients to develop such abilities and that baseline capacity for emotional arousal is not a vital consideration. The authors propose that their findings support the theory that therapeutic outcome is enhanced when emotion is aroused and reprocessed. In common with the Pos et al. (2003) study, the correlational design of this research means that inferences about the causation or sequencing of change cannot be made.

Both the Pos et al. (2003) and Missirlian et al. (2005) studies used ‘emotion episodes’ as their unit of measure. These are clearly defined segments of therapy in which the patient speaks about having an emotional response to a situation. This allows the process variable to be examined in context, in keeping with an events paradigm (Rice & Greenberg, 1984). This method has two other advantages over previous methods. Firstly, coding relevant episodes rather than entire therapy sessions means that coders are not exposed to irrelevant data.
Secondly, if only random samples of therapy segments are used, then an assumption is being made that the process in question is likely to occur at any point in the therapy session (Pos et al., 2003).

Rather than using emotion episodes, the Goldman et al. (2005) study extracted segments from ‘on theme’ sessions as a unit of measure. Patient reports from two pre-therapy measures were used to identify likely themes to be addressed in therapy. This study then explored theme related depth of emotional experiencing. An increase in levels of experiencing across therapy was found to be the strongest predictor of change. Furthermore, the depth of experiencing on core themes in the last half of therapy was predictive of reduced distress and increased self-esteem. Similarly to the Pos et al. (2003) study, levels of experiencing did not relate to change in interpersonal levels of distress. However, the small sample sizes involved in these studies mean that statistical tests have relatively low power to detect such relationships.

The therapeutic relationship has consistently been found to be the best predictor of psychotherapy outcome (Orlinsky et al., 1994). It is of note therefore that these three studies (Goldman et al., 2005; Missirlian et al., 2005; Pos et al., 2003) took into account the role of working alliance. The results suggest that an increase in depth of experiencing over the course of therapy is independently predictive of symptom change. In addition to considering the alliance factor, these three studies incorporated more of the criteria considered important (Appendix 2d) in terms of quality than the other studies included in the review and were therefore considered methodologically stronger. They all took individual differences in
baseline emotionality into account and change over time was monitored on both process and outcome measures. Each study employed a number of outcome measures, although all relied on patient self-report measures. The credibility of the results could have been enhanced if outcome had been appraised from an additional perspective, such as clinical interview.

The last two studies in this section both compared the expression of emotion in participants who had received an experiential therapy, with those who had cognitive behavioural therapy (CBT). Coombs, Coleman, and Jones (2002) explored the expression of emotion and therapist stance and their relationship to outcome. Interestingly no significant difference was found between the amount of affect expressed in the CBT group or the interpersonal therapy group. In both therapeutic approaches the collaborative exploration of emotion was significantly related to positive outcome. Among the limitations of this study was that data from only two sessions was coded and that transcripts were used to code the emotion variable. Although the authors state that the transcripts included notations for non-verbal expressions of emotion, it is questionable if the behaviours that they were coding (such as 'struggling to control feelings') can be reliably coded in the absence of video data.

The study by Watson and Bedard (2006) was the lowest rated in terms of quality in this section (see Appendix 2d). This study compared emotional processing in good and bad outcome cases in CBT and process-experiential therapy (PET) groups and investigated if emotional processing increased over the course of therapy. Good outcome in both groups was associated with higher levels of
emotional processing and (contrary to Coombs et al., 2002) the PET group demonstrated significantly higher levels of emotional processing. Comparison with the findings of the Coombs et al. study is complicated however, as each study employed different process measures. Similarly to the Coombs et al. study, Watson and Bedard only examined a fraction of the entire therapy, transcribing 20-minute segments from each of three sessions. The finding that the trend in emotional processing was not linear but was higher during the middle phase of therapy is consistent with previous results (Kiesler, 1971; Missirlian et al., 2005).

**Patient characteristics.**

The Richert (1976) study was the only process study in the review which considered a characteristic of the participants, in addition to their behaviour in therapy. Richert explored the relationship between the participants’ prognostic expectations, emotional experiencing and change. Positive expectation was associated with improvement but a negative relationship was found between levels of experiencing and perceived improvement. Although the results failed to reach statistical significance, the findings suggest a link between experiencing and change in cognitive factors, such as participants’ descriptions of themselves in relation to significant others. This study was limited in terms of statistical power and a very narrow range of experiencing scores.

**Timing and context of interventions.**

One study in the review tested hypotheses relating to the timing and context of interventions. Similarly to the Taurke et al. (1990) study, McCullough et al. (1991) measured affective and defensive behaviour. These behaviours were examined
in relation to therapist interactions and outcome. The results indicated that participants' affective responses to transference interpretations significantly predicted improvement at outcome, whilst interventions followed by defensive behaviour correlated negatively with outcome. No significant correlations were found between outcome and individual participant and therapist variables when they were examined as separate entities, it was only when they were studied in interactional sequences that the correlation with outcome became apparent. The authors conclude that based on these findings, it is preferable to study process variables in the context in which they occur rather than in isolation. This study has similar limitations to the Taurke et al. study in that only 4 sessions were sampled.

**Summary.**

The findings of earlier studies were equivocal, indicating that the relationship between the extent of emotion expressed and outcome is not straightforward. Later studies considered the depth of emotion at different points in the therapy session and the results indicated that an increase in depth of experiencing during the session was predictive of change. The impact of the type of therapy on emotional experiencing was also explored and although the results were inconsistent, the collaborative exploration of emotion was significantly related to outcome. These studies all suffer from methodological limitations as well as problems common to correlational studies, in that cause and effect assumptions cannot be deduced. Findings pertaining to the trends in depth of experiencing, as well as the timing of interventions, suggest that studies have to take into account the context of the process variable.
Theories of Change

Seven process studies explore links between specific processes and theories of change (Table 1). The research in this category is dominated by the work of Leslie Greenberg and colleagues.

Greenberg and Webster (1982) explored affect experiencing during Gestalt two-chair dialogue as part of a proposed ‘intrapersonal conflict resolution performance model’ (Greenberg, 1982). This model suggests that the expression of feeling and wants by one part of the personality is an essential component in a three-stage model of conflict resolution. This study found deepening of experiencing to be one of the elements characterising a conflict resolution performance. Arguably an excessive number of outcome measures were used during this study (eleven in total), all relied on participant self-report. The prolonged effects of the therapy were considered however and follow up interviews conducted to assess longer-term change.

Two of these studies examined the processes that individuals used to deal with ‘unfinished business’ or lingering bad feelings towards a significant other (Greenberg & Foerster, 1996; Greenberg & Malcolm, 2002). The researchers hypothesised that the process of resolution involved a number of components including the expression of blame and hurt and the arousal and expression of unresolved emotion.

The task analysis approach uses a specified theoretical framework to build and then test explanatory models of the processes thought to be involved in particular
therapeutic tasks. Greenberg and Foerster (1996) presented a model of the essential components of resolving unfinished business that they then validated by comparing successful and unsuccessful performances. The intense expression of feeling and the expression of need were two of the four performance components that were found to discriminate between resolution and non-resolution performances. Among the strengths of this study was that it used three different perspectives (patient, therapist and rater) to appraise outcome in terms of resolvers and non-resolvers. The authors assert that a task analysis approach actually takes into account the extent to which the treatment is ‘absorbed’ as opposed to merely being delivered. There is a potential problem in theory-based research such as this however, in that researchers set out to prove what they know to be true and this focus creates the potential to miss other findings (Hill, 1990).

Greenberg and Malcolm (2002) also explored the processes underlying the resolution of unfinished business to outcome in participants with interpersonal problems. One of the aims of the study was to investigate if resolution dialogues had higher emotional arousal than non-resolution dialogues and the results showed that the degree of emotional arousal discriminated between resolvers and non-resolvers. This study was hampered by small sample size however and only a small proportion of the sample actually expressed intense emotion.

A study by Watson and Greenberg (1996) explored the process of change in experiential therapy for depression. The proposed model of change suggests that accessing an emotional experience helps a patient symbolize it in words and
then reflexively examine it, this combination of events is said to lead to resolution. The researchers compared patient process and outcome measures on client-centered (CC) and process-experiential (PE) interventions. Participants in the PE group demonstrated higher levels of experiencing and greater problem resolution than the CC group.

One of the strengths of this study was that two different measures of emotion were used, in addition to the commonly used Experiencing Scale (Klein, Mathieu, Gendlin, & Kiesler, 1969). Similarly to the Greenberg and Foerster (1996); Greenberg and Malcolm (2002); and Greenberg and Webster (1982) studies, the participant’s vocal quality was analysed for features reflecting the attention and energy of the participant. In addition, their ‘expressive stance’ was coded to indicate the focus of the participant’s attention, attitude and the processing activity that they were engaged in. However, the data was collected from transcripts from specific segments of specially selected therapy sessions. A more scientific method of selecting the segments and collecting the data would have added credibility to the findings.

A further study by Watson (1996) examined the relationship between vivid description, emotional arousal and in-session resolution of problematic reaction, these are among the stages proposed in a performance model (Rice, 1986) for the resolution of problematic reactions. The results showed that emotional experiencing was associated with successful resolution of problematic reactions. The author suggests that as the participants’ recall their problematic situations to describe them in detail, they are able to access and re-experience their feelings:
vivid description is therefore thought to promote emotional arousal. This was a small study \((N = 12)\) but the results are usefully illuminated by the inclusion of excerpts from interviews that were used to explore the participants’ subjective experience of the therapeutic process.

In the last two studies the authors argue that in order to bring about change in emotional meaning structures, emotion needs to be not just accessed but also processed (Greenberg et al., 2007; Greenberg, Warwar, & Malcolm, 2008). It is suggested that in order to understand the role of emotion in change processes, productive emotional experience needs to be differentiated from that which is non-productive. Greenberg et al. (2007) explored the relationship among emotional productivity, emotional arousal and outcome by comparing better outcome and poorer outcome cases. A Productivity Scale (Greenberg, Auszra, & Herrmann, 2004), applied in the form of a decision tree, was used by coders to assess the productivity of expressed emotion.

The results showed that there were no significant differences in the degree of expressed emotion between the groups, although better outcome patients were found to have expressed more productive emotions. It is the productivity rather than the frequency of highly aroused expressed emotion that is therefore thought to facilitate change. In terms of participant numbers this was a small study \((N = 8)\). Another limitation was the absence of reliability and validity data for the Productivity Scale. This study was also considered to have a number of methodological strengths. In terms of the unit of measure, all sessions were videotaped and rated in one-minute segments. Also, rather than rely exclusively
on self-report measures, clinical interviews were used to assess the patients’ symptoms of depression at termination of therapy and again two months later.

Similarly to the previous study, Greenberg et al. (2008) examined other aspects of emotional expression, rather than considering the relationship between amount and outcome. This study explored the emotional process of forgiveness by comparing the effectiveness of emotion-focused therapy (EFT) with psychoeducation in people with interpersonal emotional injuries. It was proposed that empty-chair work would aid the process of forgiveness by facilitating emotional transformation. This is a process whereby one emotion is changed into another, for example accessing feelings of sadness changes feelings such as anger. Although the EFT group fared better on a number of outcome measures, in-session emotional arousal did not relate to outcome. In terms of the emotional process element, this study was considered to be of poorer quality than the others in the review (see Appendix 2d). The study’s major limitation was that the intensity of emotional arousal was judged on a single self-report measure. Although sessions were videotaped, no observer ratings were employed.

**Summary.**

These studies have examined how change occurs by examining links between emotional processes and particular theories. Studies in this domain have been dominated by the work of one group of researchers and have focused on experiential models of change. Models for resolving conflict, unfinished business and forgiveness were all tested and shown to involve emotional processing. These studies appear to have had a degree of success in demonstrating the
complexity of the change process and capturing some of the interacting processes involved. All the studies in this section are based on one specific experiential theory of change and the extent to which their findings may be generalized is therefore questionable.

**Discussion**

**Approaches Used to Research Affect Experiencing**

The first aim of this review was to explore the approaches used to research affect in psychotherapy process research and to illustrate the strengths and limitations of these methods. Descriptive, hypothesis testing and change theory studies have all been used to research the role of emotion in psychotherapy. Research aims and methodologies have varied considerably within these three domains. The variation in methods is partly a reflection of the time frame over which they were written. Earlier studies have tended to be exploratory, then specific hypotheses have been tested while more contemporary research has started to explore process in relation to change theories.

Each type of study is associated with particular strengths and limitations. Although not able to provide a causal explanation for a phenomenon, descriptive studies have illuminated areas of complexity. Studies that test hypotheses have proven useful because they have advanced our understanding of the link between outcome and process. Limitations of these studies have arisen from their reliance on correlational designs and in studying the process variable in isolation rather than in context.
Change theory studies have investigated how change occurs by examining links between emotional processes and particular theories. These studies are in many ways more sophisticated than those that just examine therapeutic components. Such studies rely inappropriately on what has been termed the ‘drug metaphor’ (Stiles & Shapiro, 1994), which suggests that if a process component such as experiencing is associated with positive outcome, then more of the component will produce a better outcome. By contrast, change theory studies do not assume that frequency of occurrence indicates the value of a component; rather the conditions under which the component is involved in change are the focus of the researcher’s attention. The multivariate nature of therapeutic change can therefore be captured (Llewelyn & Hardy, 2001).

**Considerations for future research design.**

Review of the literature has highlighted methodological problems that would need to be addressed in future affect experiencing research. Many of the methodological issues encountered were apparent in studies in all three types of process research. These concerned the process measure, outcome measurement and miscellaneous factors. The way in which the process variable was defined and measured was of primary importance in this review. The researchers did not work to a common definition of ‘emotion’ and potentially different concepts were measured with the same tool, for example *experiencing, arousal, depth of emotion, emotional processing* and *expression of feeling* were all operationalised in different studies using the Experiencing Scale (Klein et al., 1969). More than 16 different tools were used to measure the emotion variable in
the included studies, the most frequently used measure being the Experiencing Scale. Other studies used study-specific process and outcome measures and in many cases, no evidence was provided for their reliability and validity (Appendix 2d). The use of so many different measures makes comparison of findings across studies problematic.

Less than one-third of the studies captured the data to be coded on video (Appendix 2d). This meant that the majority of the studies coded emotion from transcripts or audio recordings. This has obvious limitations as researchers are trying to code behaviour that is in part non-verbal. The unit of measurement varied across the studies ranging from every second of therapy to entire sessions. Hill et al. (1994) caution against generalising results across units of measurements, as the results of global and molecular measures may not correlate. The majority of studies did not describe whether the data units to be coded were mixed; meaning order effects could potentially have confounded the results. The level of experience and training received by the coders also varied considerably. The majority appeared to be undergraduate psychology students with minimal clinical experience whilst in other studies experienced clinicians coded the variables in question.

In terms of the perspective from which process and outcome were examined, process measures relied heavily on observer ratings while self-report measures dominated outcome measurement. Research has found that different results occur when different perspectives are examined, so findings should not be generalized across different perspectives (Hill et al., 1994). The reliance on self-
report inventories to measure outcome is far from ideal as demand characteristics, such as patient expectations of therapy, could account for any improvement shown. The inclusion of observer or therapist-rated outcome measures would add a more objective dimension to outcome appraisal.

An issue which is relevant to both process and outcome measurement is the way in which change is tracked over time. As shown in Appendix 2d, the majority of studies did not account for change on a session-by-session basis. None of the studies examined process variables and outcome variables for every session. Kazdin (2009) suggests that assessment on a session-by-session basis is the main change required in psychotherapy change research. In this way the mediator of change can be fully evaluated and individual differences in the course of these changes can be taken into account. In general, analysis of the psychotherapy process is labour intensive and time consuming, hence the avoidance of session-by-session assessment. This also results in studies with small samples and an associated loss of statistical power (Greenberg & Malcolm, 2002).

**Current Evidence on the Therapeutic Benefits of Affect Experiencing**

The second aim of this review was to consider the current evidence on the ways in which in-session expression of affect is considered therapeutic in experiential and psychodynamic therapies. Results from the studies are difficult to integrate for the reasons outlined above, it is possible however, to draw some tentative conclusions. Almost all of the studies demonstrate that emotional expression is related to outcome. Differential results from studies that simply examined the
relationship between amount of catharsis and outcome suggest this relationship is not straightforward however (e.g. Bierenbaum et al., 1976; Kiesler, 1971; Nichols, 1974). It would seem likely that affect experiencing interacts with other processes to bring about change. For example, in psychodynamic therapy there is some evidence that promoting affect and decreasing defensive behaviours is therapeutic (McCullough et al., 1991; Taurke et al., 1990).

The mechanism by which emotion brings about therapeutic change is however still not clear. On the basis of the available evidence it looks as if an increase in the depth of emotion over the course of therapy is useful (Goldman et al., 2005; Missirlian et al., 2005; Pos et al., 2003; Watson & Bedard, 2006). It seems to be the quality of the affect experienced, for example its productivity (Greenberg et al., 2007), rather than the quantity that is the salient factor. The emotion appears to need to be reprocessed in order to be useful and a number of complex interactions involving both cognitive and affective processes are understood to be involved. Researchers have found support for several cognitive processes thought to be facilitated by the expression of affect. These include a shift by the patient in their view of a significant other (Greenberg & Malcolm, 2002) and the ability to symbolise and reflect on problematic material (Watson & Greenberg, 1996).

**Recommendations for future research.**

Consideration of the results of this review gives rise to several overarching issues. The first of these concerns the extent to which this research and its
findings are ethnocentric. All the studies in the review were conducted in the United States of America or Canada (Appendix 2c). Furthermore, examination of the demographics of the participants suggests that the majority were female and Caucasian. The generalisability of the results to other ethnic groups and cultures is therefore questionable. Potential cultural differences in affect experiencing in therapy and its salience to patients from different ethnic groups is not addressed in the current research. Future research into therapeutic change processes should take into consideration the average clinician’s multicultural client group.

The second broad issue concerns the need for future research to distinguish between affect as a mediator of change to fuller consideration of its role in mechanisms of change. It may be that affect is a mediator of change but is not actually responsible for change. The more contemporary studies in this review are moving towards a mechanistic approach but the actual processes through which affect experiencing brings about change is still not known. Rather than tests of mediation, multiple lines of converging evidence are required to understand a mechanism of change (Kazdin, 2009). Emotion research appears to be dominated by correlational process studies and from the researcher rather than participant perspective. Physiological studies (e.g. using neuroimaging) as well as qualitative approaches would broaden the evidence base. Interestingly, no qualitative studies were found whilst undertaking the literature search for this review. Studying the process from the patients’ viewpoint would surely illuminate the process and help triangulate the available evidence.
The last issue to be considered is the dominance in the field of emotion process research by those working from a gestalt experiential perspective. A purely psychodynamic account of affect experiencing has received little support in studies. The role of affect experiencing in an evidence-based psychodynamic therapy should be studied in order to address this knowledge deficit. Consideration of the strengths and limitations of the extant research suggests that such studies should use an event paradigm and examine affect in the context of another process variable. The process variables should be clearly defined and measured by trained and experienced observers using videotapes rather than transcripts. Change over time in both process and outcome domains should be assessed and the role of working alliance controlled for.

Underpinning these empirical issues is a sense that emotion process research lacks cohesiveness. Rather than multiple single studies, the development of research programs such as those devoted to task analysis research is thought to be associated with making scientific progress in the study of change (Pascual-Leone, Greenberg, & Pascual-Leone, 2009). This type of research program could be usefully employed by those working from other theoretical perspectives to advance their own theories of change.

**Clinical Implications**

Clinicians are urged to base their treatments on evidence-based explanations which may be defined as “replicated findings that convey the mechanisms responsible for change for a given treatment and how these mechanisms operate to produce symptom improvement” (Kazdin, 2009, p. 419). Using this definition it
is not yet possible to give an evidence-based explanation of the therapeutic role of affect experiencing, or therefore to advocate that it is a critical component of therapy. On the basis of the available evidence however, it is possible to make a number of recommendations to clinicians. Emotional expression is an important component in therapy and patients should be encouraged and supported to express their feelings. It is not enough however, just to generate emotion but the therapist needs to help the patient to process it cognitively in order to use it to achieve a new level of understanding.

**Conclusion**

Descriptive, hypothesis testing and change theory studies have been used to research the role of in-session expression of affect in psychodynamic and experiential psychotherapies. Each type of study has strengths and limitations but methodological problems abound and primarily concern the ways in which process variables are operationalised and measured. The current evidence on the therapeutic benefits of in-session expression of affect has been appraised. The evidence suggests that the expression of emotion is useful in psychotherapy however, the mechanism by which it achieves a therapeutic benefit is still unclear. It is not yet possible to draw on an evidence-base to advocate affect experiencing as a critical component of therapy. The in-session expression of affect is likely to be useful to the patient however, if the therapist uses it to bring about a new level of understanding. Overarching issues in this field of research include an ethnocentric focus, concentrating on mediators rather than mechanisms of change and the lack of a cohesive approach. Further studies in
this area should focus on the role of affect experiencing in the context of psychodynamic therapy and track both process and outcome variables over time.

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Section 2

Research Report
An Investigation into the Relationship Between Affect Experiencing, Degree of Inhibition and Distress in Intensive Short-Term Dynamic Psychotherapy

Abstract

Objectives. Short-Term Dynamic Psychotherapy (STDP) is based on the principles of psychodynamic psychotherapy: that defences and anxieties block the expression of true feelings. Affect experiencing is considered to be the primary change mechanism in STDP. Inhibitory feelings or anxiety are said to block the experiencing of affect. The purpose of this study was to investigate the relationship between affect experiencing, degree of inhibition and outcome in an anxiety-provoking model of STDP known as Intensive Short-Term Dynamic Psychotherapy (ISTDP).

Design. A single case series design was used.

Methods. Six patients were recruited to participate in this study. They all had common mental health problems and were on the waiting list for psychotherapy at a Community Mental Health Team outpatient clinic. All went on to receive ISTDP and sessions 1-20 of the treatment process were studied. Excerpts from video recordings of each session were coded for peak affect and average inhibition. Each participant completed weekly self-report measures of symptom distress so that the relationships between in-session affect experiencing, inhibition and ongoing distress could be determined.

Results. The ratio of affect experiencing to degree of inhibition (referred to as affective capacity) increased over the course of therapy in three participants. Increased affective capacity was associated with a reduction in symptom distress in those patients who recovered after 20 sessions. A positive correlation was
found between affective capacity and working alliance scores in both participants who recovered and in one of the participants with a poorer outcome.

Conclusions. The results offer tentative support for the emphasis in ISTDP on mobilizing unconscious emotions. These preliminary findings warrant replication in a larger study. This study demonstrates the value of single case series studies in highlighting hypotheses worthy of further empirical study.

A large body of evidence attests to the effectiveness of psychotherapy in bringing about personal change (Lambert & Ogles, 2004). However, researchers have yet to address what is known as the outcome paradox. This is the finding that disparate therapeutic approaches are broadly equivalent in terms of outcome (Stiles, Shapiro, & Elliott, 1986). How therapy leads to change is one of the most important questions facing psychotherapy researchers. Reaching such an understanding will allow the critical processes underpinning change to be optimised. Such information will also provide therapists with the knowledge of the crucial elements to include in their work and facilitate the selection of suitable patients (Kazdin, 2009).

Process research aims to demonstrate how therapy works whilst outcome research attempts to determine if patients improve significantly over the course of therapy. The integration of these research traditions has given rise to process-outcome studies, which investigate what psychotherapy is whilst evaluating what it does (Orlinsky, Grawe, & Parks, 1994). Emotional processes are considered to be of central importance in bringing about therapeutic change in psychotherapy.
A review of the process-outcome literature across therapeutic modalities provides some credence for this theory, indicating that the facilitation of emotional processes produces change (Whelton, 2004).

The achievement of emotional insight is a particular focus in psychodynamic therapies. From this perspective, the patient is thought to gain mastery over previously suppressed material by being exposed to and experiencing emotion (Blagys & Hilsenroth, 2000). Freud found that a force that he termed ‘resistance’ was responsible for the suppression of this emotional material, hampering efforts to bring it into conscious awareness in therapy (Breuer & Freud, 1895/2004).

Short-Term Dynamic Psychotherapy (STDP) is based on the universal principle of psychodynamic psychotherapy: that defences and anxieties block the expression of true feelings (Malan, 2001). STDP was developed as therapists tried various ways to overcome the resistance so that the patient could more rapidly integrate repressed memories and feelings into conscious awareness (Coughlin Della Selva, 1996). The ways in which this task is approached has given rise to a number of different schools of STDP. Davanloo (2000) described an anxiety-provoking model that he labelled Intensive Short-Term Dynamic Psychotherapy (ISTDP) and which is suitable for working with the entire spectrum of psychoneurotic disorders. Frustrated with the length of treatment offered by psychoanalysis, this treatment option is characterised by the therapist offering a systematic challenge to defences within the context of the interaction between therapist and patient. Use of these specific interventions results in rapid removal of the resistance, thus accelerating therapy.
McCullough has modified Davanloo’s confrontational approach, adopting instead an anxiety-regulating approach. McCullough uses the term ‘affect phobia’ to define the problem in learning theory terms as a phobia of feelings (McCullough, Kuhn, Andrews, Kaplan et al., 2003). McCullough defines affect as a “biologically endowed set of psychological and physiological responses that motivate us or move us to act” (McCullough, Kuhn, Andrews, Kaplan et al., 2003, p. 18).

McCullough and Magill (2008) describe two different categories of affects:

- Activating affects - such as grief, anger and joy
- Inhibitory affects - such as guilt, shame, emotional pain and fear/anxiety

In general, activating affects are seen as healthy and adaptive. Inhibitory affects however tend to stop the use and expression of the activating affects. These two types of feelings can therefore be described as oppositional. When adaptive affects are blocked by the inhibitory affects, defensive responding results. Common examples of the oppositional nature of these affects include guilt over anger and pain over closeness. Psychodynamic conflict is therefore seen to result from conflicts surrounding feelings, specifically the opposition between activating and inhibitory affects (McCullough & Magill, 2008).

Interest in short-term psychotherapy has gained momentum in the last few years, partly as a result of financial pressures in healthcare systems but also as awareness of the efficacy of such treatments increases. A recent Cochrane review (Abbass, Hancock, Henderson, & Kisely, 2006) concluded that this type of therapy ‘showed promise’ and led to modest to moderate gains in a variety of patients but that data was rather limited. A meta-analysis by Leichsenring,
Raburg, and Leibing (2004) also found STDP to be an effective treatment but suggested that the ‘active ingredients’ of this therapy need to be studied. Diener, Hilsenroth, and Weinberger (2007) similarly warn that the mechanisms of action that account for the efficacy of this type of therapy have yet to be fully determined.

Change factors in psychotherapy may be grouped into common factors (those shared by many therapeutic approaches) and specific factors (those from a particular type of therapy; Wampold, 2001). Researchers have been trying to distinguish between the effects of these two factors on change in STDP. The demonstration of the effects of specific techniques, such as affect experiencing, is a key research focus in this type of therapy (Svartberg, Seltzer, & Stiles, 1998). Affect experiencing is considered to be the primary change mechanism in STDP with the main objective being to help the patient face, tolerate and ultimately experience previously warded-off affects (McCullough & Magill, 2008).

A recent meta-analysis has shown that therapist facilitation of affective experience correlates with positive outcome in psychodynamic psychotherapy (Diener et al., 2007). Preliminary research has found that patient affect experiencing accounted for a significant amount of the outcome variance in anxiety-regulated STDP (McCullough & Magill, 2008). Davanloo (2005) suggests that, depending on the severity of the psychological trauma experienced, a person will collect a ‘pathogenic reservoir’ of unconscious feelings. He states, “in ISTDP, the major emphasis is on the patient’s actual experience of feelings” (Davanloo, 2005, p. 35). Malan (2001) similarly asserts, “the aim of every session
is to put the patient in touch with as much of his true feelings as he can bear” (p. 84). In seeking to understand change mechanisms in STDP, the level of affect arousal experienced by the patient in-session is therefore of the ultimate significance.

Research suggests however, that whilst emotional experiencing may be a necessary process, it is not in itself sufficient to bring about change. Research on affect experiencing and outcome is equivocal. The results from some studies suggest that the amount of emotional expression in experiential psychotherapy is positively correlated with good outcome (Coombs, Coleman, & Jones, 2002; Kiesler, 1971; Nichols, 1974; Watson & Bedard, 2006). Other researchers have failed to demonstrate a correlation between emotional expression and outcome (e.g. Bierenbaum, Nichols, & Schwartz, 1976). Lack of attention to context is a common problem in process research (Greenberg, 1986) and the discrepancies in these findings underline the need to look at therapeutic process in context rather than in isolation.

Psychodynamic theorists such as Malan (2001) understand psychodynamic conflicts to be resolved when a patient is exposed to ‘true’ or activating feelings without experiencing the punishing effects of inhibitory feelings such as anxiety. Inhibitory feelings or anxiety block the experiencing of true feelings (affect experiencing). When inhibitory feelings are so sufficiently prominent that they interfere with an individual’s capacity to experience their feelings, psychopathology arises. For example, a patient may feel guilt (inhibition) over anger (affect) or shame about grief (McCullough & Magill, 2008). It would
therefore seem necessary when studying the role of affect experiencing in mechanisms of change to also take into account levels of patient inhibition.

A battery of instruments known collectively as ‘The Achievement of Therapeutic Objectives Scale’ (ATOS) has been developed by researchers seeking to evaluate the therapeutic effects of STDP (McCullough, Larsen, Schanche, Andrews, & Kuhn, 2003). Using a medical metaphor, McCullough explains that it is important when delivering a medication to know how much of the drug is actually absorbed. The ATOS was designed to measure the extent of the effects of therapy that the patient has assimilated. The ATOS contains seven instruments, each of which measures one of the main objectives of STDP. Each instrument uses a 1-100 format to rate an aspect of behaviour. The procedure most commonly employed by researchers is to review 10-minute segments of psychotherapy sessions using video/audio tapes or transcripts and to rate each segment for evidence of the treatment objective in question.

Two of the seven subscales that constitute the ATOS scale are designed to measure affect experiencing and degree of inhibition. The first of these subscales is the Affect Experiencing scale. This measures the degree of bodily arousal in response to the adaptive affect the patient actually experiences during the session. The intensity of feelings as shown by the tone of voice, facial expression and non-verbal behaviour or movement is rated. The second subscale is the Degree of Inhibition scale. This measures the regulation of inhibitory affects such as anxiety, guilt and shame. As with the Affect Experiencing scale, the Degree of Inhibition scale examines and quantifies the ways in which these feelings
manifest themselves in the body. Physiological signs of discomfort such as tension, squirming, and sighing are rated.

The behaviours of particular interest in the proposed study are the patients’ experience of activating and inhibitory affects. McCullough, Andrews, Schlager, Svartberg, and Stiles (2009) analysed the relationship between these two behaviours as they were expressed by patients in a series of therapy sessions. By dividing the level of activating affect (from the ATOS Affect Experiencing scale) by the level of inhibitory affect (from the ATOS Degree of Inhibition scale) McCullough arrived with a figure for what she termed the degree of ‘affective capacity’. Preliminary findings suggest that the level of affective capacity is significantly associated with positive outcome in STDP.

The Present Study

Despite calls for research examining the processes underlying ISTDP (Abbas et al., 2006), to date no studies have examined the relationship between affect experiencing and inhibition with outcome in this form of short-term psychodynamic therapy. This study aims to consider the process of therapeutic change in ISTDP by examining the relationship between affect experiencing with degree of inhibition and levels of patients’ self-reported symptom distress. Similarly to the McCullough et al. (2009) study, the ratio between the affect and inhibition variables (the affective capacity) was studied. Symptom distress measures were examined at two levels (a) the change in symptom distress pre and post the course of treatment to ascertain treatment effects, (b) the ongoing distress using session-by-session or proximal outcome data. This enabled the
psychotherapy process to be examined according to two clinically significant episodes. This is consistent with recommendations to transcend the dichotomy between process and outcome by segmenting treatments into clinically meaningful units (Greenberg, 1986).

In order to explore the relationship between affective capacity and reported symptom distress, several other factors need to be considered. The therapeutic relationship has consistently been found to be the best predictor of psychotherapy outcome (Orlinsky et al., 1994). Although the therapeutic alliance is considered important in other mainstream therapies such as cognitive behavioural therapy (CBT), short-term psychodynamic-interpersonal approaches consider the therapeutic alliance to be a vehicle for the process of change (Kerr, Goldfried, Hayes, Castonguay, & Goldsamt, 1992). In a review of the literature Ackerman and Hilsenroth (2003) found that therapist techniques, such as facilitating expression of affect, contributed positively to the alliance. As one of the main aims of the therapist in ISTDP is to facilitate the expression of affect, it is important to find out if the relationship between affect experiencing, degree of inhibition and outcome is affected by the alliance. If as Kerr et al. (1992) propose, the therapeutic alliance is a vehicle for the process of change, then an increase in the working alliance should be mirrored by positive changes in patient processes: in this case affect experiencing and degree of inhibition.

The demonstration of the gradual improvement over the course of therapy in a patient behaviour, such as affect experiencing, is of interest. It suggests that rather than being a skill that the patient presented with, it has been acquired in
therapy (Pos, Greenberg, Goldman, & Korman, 2003). It is therefore relevant in exploring the concept of affective capacity as a change mechanism to see if this is a skill that the patient can develop. An increase in the patient’s ability to express affect and manage their anxiety would support this psychoeducational element of the therapy and, in addition to working alliance, was taken into account in the present study.

In further consideration of the ability to acquire an aptitude to experience affect in a therapy such as ISTDP, individual differences such as the degree of alexithymia should be considered. Alexithymia is a personality trait involving a deficit in the ability to understand, process or describe emotions (Bagby, Parker, & Taylor, 1994). Previous research on STDP treatments has indicated that reduced alexithymia is a probable treatment effect contributing to effectiveness (Beresnevaite, 2000; Poulsen, 1991). The degree of alexithymia in an individual was therefore taken into consideration in this study of affect experiencing.

**Research Aims and Hypotheses**

The aim of this study was to investigate the association between affect experiencing and inhibition with symptom distress in ISTDP. It was predicted that an increase in affect experiencing and a concurrent decrease in the degree of inhibition would be found across the course of the therapy and will be associated with an improvement in the alliance and a decrease in measures of distress. The term ‘affective capacity’ was used to refer to the ratio of affect experiencing to degree of inhibition. The following hypotheses were tested:
1. Affective capacity will increase from session 1 to session 20
2. Affective capacity will be negatively correlated with distress measures
3. Affective capacity will correlate positively with working alliance

**Method**

**Design**

This study uses a single case series to examine variation in process variables and outcome within each participant. Rather than examining the performance of aggregates or groups of individuals, this study adopts what is known as an intensive analysis research paradigm (Safran, Greenberg, & Rice, 1988). From this approach, the performance of individual participants is studied in detail and attempts are then made to generalize through replication on a case-by-case basis. This is in line with the method that Hilliard (1993) refers to as ‘single-case quantitative analysis’. Rather than manipulate the variables studied, quantitative techniques were used to map their course over time. The basic requirements for single case design were met in that the goals of therapy could be established and were measurable. There were also clear links between the therapeutic model and the intervention (Turpin, 1998).

Following an assessment interview to determine suitability for ISTDP, each participant commenced a 20-session course of ISTDP. Sessions 1 - 20 of the treatment process were studied.
Measures

Assessment measures.

Inventory of Interpersonal Problems - Short Circumplex Form (IIP-SC; Soldz, Budman, Demby, & Merry, 1995): The IIP-SC is a 32-item version of the 64-item circumplex form (IIP-C; Alden, Wiggins, & Pincus, 1990) developed from the original 127-item Inventory of Interpersonal Problems devised by Horowitz, Rosenberg, Baer, Ureno, and Villasenor (1988). The IIP-SC (Appendix 4a) was completed pre and post therapy to measure distress arising from interpersonal sources. Respondents rate the 32 items describing an aspect of their behaviour using a 5-point scale ranging from 0-4, with higher scores reflecting increased distress. It comprises eight subscales: domineering, vindictive, overly cold, socially avoidant, non-assertive, exploitable, overly nurturant, and intrusive. The internal consistency of the measure is reported as (α) .89 and the test-retest correlation for a generic outpatient sample as .83 (Soldz et al., 1995).

Toronto Alexithymia Scale-20 (TAS-20; Bagby et al., 1994): The TAS-20 is a 20-item self-report scale used to measure alexithymia, a personality trait involving a deficit in the ability to understand, process or describe emotions. The TAS-20 (Appendix 4b) was completed pre and post therapy to assess the degree to which a participant could be considered alexithymic. The measure comprises 20 statements relating to the processing of emotion and covers three factors: difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking. Respondents are required to rate their agreement with each statement on a scale of 1-5. A score of ≤ 51 identifies individuals as low alexithymia whilst
scores ≥ 61 indicate high alexithymia. The internal consistency of the measure is reported as (α) .81 and the test-retest correlation as .77 (Bagby et al., 1994).

**Distress measures.**

Beck Depression Inventory II (BDI II; Beck, Steer, & Brown, 1996): The BDI II is a 21-item self-report measure of the severity of symptoms of depression (Appendix 4c). Each response is rated on a 4-point scale ranging from 0-3; the ratings are then added to give one overall score. Scores of 14-19 are said to be indicative of mild depression, 20-28 of moderate depression and 29-63 of severe depression. The BDI II has been reported as having an internal consistency (α) of 0.91 for psychiatric outpatients (Beck, Steer, Ball, & Ranieri, 1996). The test-retest correlation for one week is reported as .93 (Beck, Steer, & Brown, 1996).

Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM; CORE System Group, 1998): The CORE-OM is a 34 item self-report measure with items being scored on a 5-point scale. As well as giving a global measure of distress, information on four different dimensions can be gained namely: well-being, problems, functioning, and risk (Appendix 4d). The CORE-OM is reported as having an internal consistency (α) of 0.75-0.95 (Evans et al., 2002). The CORE-OM score is the mean of all completed items multiplied by 10, a cut-off score of 10 distinguishing between a clinical and non-clinical population with higher scores indicating increased distress (Connell et al., 2007). The test-retest correlation based on an outpatient sample is reported as ≥ .80 for intervals up to 4 months (Barkham, Mullin, Leach, Stiles, & Lucock, 2007).
**Alliance measures.**

Working Alliance Inventory (WAI; Horvath & Greenberg, 1986): The WAI is a self-report measure used to assess the quality of the alliance between therapist and patient. The tool comes in a different form for therapist (Appendix 4e) and patient (Appendix 4f). The WAI comprises 12 statements reflecting an aspect of the therapeutic relationship and respondents score each item using a 7-point scale, with higher scores indicating a stronger alliance. The therapist and participant completed this measure separately following each therapy session. The scores from the short 12-item version used in this study have been found to reflect those of the longer 36-item form (Busseri & Tyler, 2003). Reliability estimates (α) of the WAI range from 0.84-0.93 (Cecero, Fenton, Nich, Frankforter, & Carroll, 2001).

**Process measures.**

Affect Experiencing Scale (AES; from the Achievement of Therapeutic Objectives Scale [ATOS], McCullough, Larsen, et al., 2003): The ATOS is a series of observer-based measures designed to rate aspects of the psychotherapy process when applied to segments of videotaped sessions. Each measure comprises a 100-point rating scale divided into 10-point increments. Each of the increments is grounded in behavioural examples of the aspect of process in question. One of the sub-scales, the AES, was used in the present study to measure emotional arousal during the therapy session (Appendix 4g). Raters consider three components of emotional arousal in a 10-minute segment of therapy: the peak degree of arousal, the duration of the affective response and the relief in the experience of the feeling. A score is then awarded between 1 and 100, with higher scores reflecting fuller affective expression. Positive correlations
between Klein, Mathieu, Gendlin, and Kiesler’s (1969) Experiencing Scale and the AES and Perry’s (1990) Defense Mechanism Rating Scale and the AES have been demonstrated (Carley, 2006). This supports the convergent validity of the AES rating scale.

Degree of Inhibition scale (DIS; from the ATOS, McCullough, Larsen, et al., 2003): The DIS is also a sub-scale from the ATOS and is similar in format to the AES. It was used in this study to measure the degree of inhibitory affect (such as anxiety, guilt and shame) present in the psychotherapy session (Appendix 4h). Raters consider two components when rating the inhibition displayed in a 10-minute segment: the average degree of inhibitory affect and the duration. A score between 1-100 is awarded with higher scores reflecting more complete inhibition.

Reliability for the ATOS sub-scales has been assessed using intraclass correlations (ICCs). Inter-rater reliability estimates for the AES range from .65 for early versions of the instrument to .80 for the current version (McCullough, Kuhn, Andrews, Valen et al., 2003). The authors note that a clear dose-response relationship between training on the scales and reliability was evident. Following 21 hours training in using the ATOS, post-graduate psychology students were able to attain an ICC of .68 on the same subscale (Schanche, 2006).

Raters.

The researcher and an additional coder acted as raters. The raters were both third year trainees on the Doctorate in Clinical Psychology programme. The researcher had full knowledge of the aims of the study; the other rater was naïve
to the study hypotheses. The two raters received in excess of 16 hours of training on the use of the two ATOS subscales. Intraclass correlations were calculated to assess inter-rater reliability against expert generated ratings. An ICC for ATOS ratings was obtained by calculating the mean across the AES and DIS. The raters attained ICC values of between .66-.78 (for the DIS) and .89-.90 (for the AES). ICC values of .61-.80 can be taken to represent moderate agreement beyond chance (Shrout, 1998). When an average ICC for each coder’s ratings on the ATOS scales was obtained, values reached the substantial level (> .81; Shrout, 1998). To monitor coding drift, reliability was checked at regular intervals against the ATOS rating of an expert coder.

**Participants.**
Six participants were included in the case series (see Table 1 for participant information). They were required to meet the following inclusion criteria to be considered for the study:
(a) A diagnosis of a common mental health problem highlighted in their referral and a BDI II score > 19 at baseline.
(b) Not in receipt of psychotherapy within 6 months of the beginning of treatment or currently undergoing additional talking therapy treatment.
(c) No contraindications to the use of ISTDP; these include psychosis, active alcohol and substance misuse or a life threatening physical condition e.g. ulcerative colitis (Coughlin Della Selva, 1996).

Participants were drawn from the top of the waiting list for psychotherapy at a Community Mental Health Team outpatient clinic. Based on the information
collected at an initial assessment, participants were not considered for potential participation in the study if they did not meet the above criteria. Those who met the criteria were then invited to participate and subsequently received the Mini-International Neuropsychiatric Interview (MINI; Lecrubier et al., 1997) at an assessment interview to verify the existence of a mental health problem. This test is a short diagnostic structured interview, which explores current disorders according to Diagnostic and Statistical Manual IV criteria (DSM-IV; American Psychiatric Association, 1994). The MINI is structured in order to facilitate administration by non-specialized interviewers (Lecrubier et al., 1997). A trainee clinical psychologist performed it in this instance. The presence of the following disorders was appraised: depression, dysthymia, panic disorder, agoraphobia, social phobia, obsessive-compulsive disorder, psychotic disorders, and generalized anxiety disorder. Participants’ informed consent to participate in the study was then obtained (see Appendices 5a and 5b for participant information sheet and consent form). Ethical approval for the study was received from Leicestershire, Northamptonshire and Rutland Research Ethics Committee 1.
Table 1. Participant information

<table>
<thead>
<tr>
<th>Participant Number</th>
<th>Age</th>
<th>Gender</th>
<th>Employment</th>
<th>Diagnoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40</td>
<td>Female</td>
<td>Unemployed</td>
<td>Depression, Agoraphobia, Social phobia, Obsessive compulsive disorder</td>
</tr>
<tr>
<td>2</td>
<td>27</td>
<td>Female</td>
<td>Employed</td>
<td>Dysthymia, Panic disorder with agoraphobia</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>Male</td>
<td>Student</td>
<td>Dysthymia, Agoraphobia, Social phobia, Obsessive compulsive disorder</td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>Female</td>
<td>Homemaker and mother</td>
<td>Hypomania with rapid cycling depression</td>
</tr>
<tr>
<td>5</td>
<td>62</td>
<td>Female</td>
<td>Retired</td>
<td>Depression</td>
</tr>
<tr>
<td>6</td>
<td>40</td>
<td>Female</td>
<td>Unemployed</td>
<td>Depression, Panic disorder, Social phobia, Generalised anxiety disorder</td>
</tr>
</tbody>
</table>

Procedure

Before therapy commenced, two measures of symptom distress (CORE-OM and BDI II) were taken on three different occasions in order to establish a baseline level of functioning. The first of these measures was taken at an introductory assessment interview, the second when they attend for diagnostic assessment and the third before the first therapy session. During the assessment interview and before their final therapy session, participants also completed the TAS-20 and the IIP-SC.

All participants received a weekly course of ISTDP following Davanloo’s (2000) guidelines delivered by a chartered clinical psychologist. He had received in excess of 100 hours expert supervision in the method at the start of treatments.
The therapeutic process involves the delivery of specific emotion-focused interventions aimed at the rapid removal of the resistance. The focus is on the transference relationship between the therapist and patient. These interventions include pressure to mobilize emotions and the systematic challenge to defences (Davanloo, 2005). Before each therapy session the participant’s level of symptom distress was assessed using the CORE and BDI measures. Immediately following each session the therapist and participant completed the WAI.

It is standard practice to make video recordings of ISTDP therapy sessions for subsequent review by the therapist and for use in supervision. Excerpts from these video recordings provided the core material for the research study. The part of the therapy session of particular interest in this study was the moment at which the participant experienced a peak in their physiological emotional arousal. Following each of the 20 therapy sessions, the therapist played back the video of the session and examined in detail those points at which the participant was emotionally aroused. The therapist has received expert training on the use of the ATOS subscales. Using the AES scale the therapist scored the peak level of emotional arousal in each relevant section. The segment featuring the highest scored expression of emotion was then selected for the study. Using the on-screen clock, the therapist identified this point in the video of the therapy session. He then noted the type of affect expressed and the time at which it peaked. The 10-minute segment to be coded began exactly 4 minutes before this time point. Therefore the process data for the study comprised one 10-minute piece of video footage per session for each of 20 sessions per participant.
The therapist played no further role in coding the 10-minute segment and did not subsequently reveal the peak affect score that he had allocated to the segment. All the video footage was copied onto an encrypted hard-drive which was then used independently by the two raters. The raters were given written instructions identifying the participant and session number (as logged on the hard drive) and the start and stop time of the segment to be coded, using the on-screen clock. They were also told the target affect (e.g. anger, love or sadness) to code. The video extracts were coded in random order.

The raters subsequently viewed each 10-minute segment utilising the predetermined timings. The AES and DIS from the ATOS were used to code the peak degree of affect and average level of inhibition experienced by the participant during the 10-minute segment. After watching the 10-minute segment, the two raters independently rated the peak affect and average inhibition demonstrated in the session. Consensus was then reached on the final scores to be awarded.

**Analysis**

The Reliable Change Index\(^1\) (RCI; Jacobson & Truax, 1991) was used with the CORE-OM, BDI, IIP-32 and TAS-20 scores to determine if the magnitude of change for each participant was statistically reliable and clinically significant. Trends in levels of affect experiencing and inhibition across the 20 sessions and in relation to the measures of distress were examined. Testing to see whether

\(^{1}\) Calculated in this study using the test-retest reliability data
these variables were linearly related to each other was accomplished using Spearman’s r test of correlation.

Results

The first section of the results will present descriptive statistics for the participants’ outcome. The second section addresses the study’s hypotheses.

Descriptive Statistics

Treatment outcome.

Pre-treatment scores on the BDI and CORE-OM measures indicate that all the participants scored within the clinical range. The Reliable Change Index (Jacobson & Truax, 1991) was used to analyse the participants’ scores on the BDI, CORE-OM, IIP-SC and TAS-20 (Table 2). Two participants (P1 and P2) showed clinical and statistically significant change on all three of the symptom assessment tools (BDI, CORE-OM and IIP-SC). To aid graphical presentation of the results, they are referred to as ‘recovered’. Two other participants (P3 and P4) showed clinical and statistically significant change on the BDI and CORE-OM but not the IIP-SC, they are referred to as ‘improved’. No significant change was demonstrated in the results for P5 and P6. Four participants started therapy with scores indicative of high alexithymia (P2, P3, P5 and P6). Two participants (P1 and P2) demonstrated clinical and statistically significant change on the measure.
Table 2. Scores at pre-therapy and post-therapy for symptom and distress measures

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Participant</th>
<th>Measure</th>
<th>Pre score</th>
<th>Post score</th>
<th>RCI</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovered</td>
<td>P1</td>
<td>BDI</td>
<td>23</td>
<td>5</td>
<td>Z = 4.60</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CORE-OM</td>
<td>18.20</td>
<td>1.20</td>
<td>Z = 4.96</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IIP-SC</td>
<td>2.13</td>
<td>0.19</td>
<td>Z = 5.71</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TAS-20</td>
<td>56</td>
<td>31</td>
<td>Z = 2.74</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>BDI</td>
<td>26</td>
<td>4</td>
<td>Z = 5.63</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CORE-OM</td>
<td>18.80</td>
<td>1.80</td>
<td>Z = 4.96</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IIP-SC</td>
<td>1.75</td>
<td>0.94</td>
<td>Z = 2.38</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TAS-20</td>
<td>73</td>
<td>39</td>
<td>Z = 3.72</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td>Improved</td>
<td>P3</td>
<td>BDI</td>
<td>28</td>
<td>16</td>
<td>Z = 3.07</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CORE-OM</td>
<td>19.70</td>
<td>12.90</td>
<td>Z = 1.98</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IIP-SC</td>
<td>2.34</td>
<td>1.75</td>
<td>Z = 1.74</td>
<td>NS*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TAS-20</td>
<td>63</td>
<td>53</td>
<td>Z = 1.20</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>BDI</td>
<td>50</td>
<td>0</td>
<td>Z = 12.78</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CORE-OM</td>
<td>18.20</td>
<td>.60</td>
<td>Z = 5.13</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IIP-SC</td>
<td>1.50</td>
<td>1.09</td>
<td>Z = 1.21</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TAS-20</td>
<td>48</td>
<td>-</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>No change</td>
<td>P5</td>
<td>BDI</td>
<td>35</td>
<td>34</td>
<td>Z = 0.26</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CORE-OM</td>
<td>23.50</td>
<td>25.30</td>
<td>Z = -0.52</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IIP-SC</td>
<td>1.94</td>
<td>1.52</td>
<td>Z = 1.24</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TAS-20</td>
<td>83</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P6</td>
<td>BDI</td>
<td>45a</td>
<td>53</td>
<td>Z = -2.05</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CORE-OM</td>
<td>21.80</td>
<td>27.90</td>
<td>Z = -1.78</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IIP-SC</td>
<td>1.38</td>
<td>1.59</td>
<td>Z = -0.62</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TAS-20</td>
<td>63</td>
<td>75</td>
<td>Z = -1.31</td>
<td>NS</td>
</tr>
</tbody>
</table>

Note. *NS = not significant, ** - = missing data

* In most participants there was a gap of approximately 2 weeks between the recording of pre-therapy scores and the commencement of therapy. In P6 this period of time was in excess of four months.

Weekly distress scores.

Trends in the weekly symptom distress measures for all six participants are displayed in Figure 1. Visual inspection of the graph suggests that in four of the participants (P1, P2, P3, P4) there was generally a reduction in recorded
symptom distress. In P4 there was significant undulation in the scoring pattern, although the peaks become smaller and further apart. This pattern of reported symptom distress was reflected in her clinical condition.

**Figure 1.** Scores on BDI and CORE-OM over the course of therapy
**Working alliance scores.**

The working alliance client scores for all six participants are given in Table 3. It can be seen that, when compared to the other participants, P1 had the highest score at session 1 and session 20 and the highest overall mean score. Participant 1 also had the lowest variation in scores. Participant 2 had the lowest score at session 1 and the lowest mean score overall. The standard deviation for her scores is relatively high compared to the other participants.

**Table 3.** Scores at session 1 and session 20 for WAI client measure

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Participant</th>
<th>Score Session 1</th>
<th>Score Session 20</th>
<th>Number of data points</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recovered</td>
<td>P1</td>
<td>83</td>
<td>84</td>
<td>20</td>
<td>83.95 (0.22)</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>57</td>
<td>73</td>
<td>19*</td>
<td>57.74 (8.44)</td>
</tr>
<tr>
<td>Improved</td>
<td>P3</td>
<td>64</td>
<td>69</td>
<td>20</td>
<td>68.20 (6.08)</td>
</tr>
<tr>
<td></td>
<td>P4</td>
<td>62</td>
<td>74</td>
<td>18*</td>
<td>71.22 (5.56)</td>
</tr>
<tr>
<td>No change</td>
<td>P5</td>
<td>75</td>
<td>73</td>
<td>20</td>
<td>71.80 (2.26)</td>
</tr>
<tr>
<td></td>
<td>P6</td>
<td>62</td>
<td>64</td>
<td>20</td>
<td>63.05 (4.43)</td>
</tr>
</tbody>
</table>

*Note.* *Missing data*

Trends in the working alliance client scores for all six participants are displayed in Figure 2. Visual inspection of the graph suggests that for P1 working alliance scores were consistently high. The scores for P5 are also fairly consistent. Scores for P2 and P6 appear to increase over the course of 20 sessions. The WAI client scores for P3 and P4 appear to fluctuate. Although missing two data points, the scores for P4 appear higher in the second half of therapy. No particular pattern is discernable for P3.
Affect, inhibition and affective capacity scores.

The descriptive statistics for the peak affect, degree of inhibition and the ratio of affect to inhibition (affective capacity) scores are presented in Table 4. This table illustrates the two scores that the raters awarded for the participants’ peak level of affect (from the AES) and the average inhibition score (from the DIS). The
affective capacity score is the ratio of the peak affect to average inhibition scores. The scores from the first session and the twentieth session are provided to facilitate appraisal of the degree of progress made by each participant in either experiencing affect or managing inhibition. It is interesting to note that, when compared to the other participants, participant 1 had the lowest score on peak affect at session 1 and the highest score of the same measure at session 20 and of any of the other participants over the course of therapy. She also had the highest initial score for degree of inhibition and lowest final score on the same measure. Participants 1 and 2 had the highest score for affective capacity in session 20 and the highest mean over the duration of therapy.
Table 4. Descriptive statistics for peak affect, degree of inhibition and affective capacity

<table>
<thead>
<tr>
<th>Participant</th>
<th>Recovered 1</th>
<th>Recovered 2</th>
<th>Improved 3</th>
<th>Improved 4</th>
<th>No change 5</th>
<th>No change 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Peak affect on AES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session 1</td>
<td>1</td>
<td>31</td>
<td>29</td>
<td>39</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Session 20</td>
<td>82</td>
<td>51</td>
<td>51</td>
<td>41</td>
<td>41</td>
<td>61</td>
</tr>
<tr>
<td>Minimum over 20 sessions</td>
<td>1</td>
<td>19</td>
<td>20</td>
<td>20</td>
<td>4</td>
<td>30</td>
</tr>
<tr>
<td>Maximum over 20 sessions</td>
<td>92</td>
<td>90</td>
<td>69</td>
<td>51</td>
<td>41</td>
<td>65</td>
</tr>
<tr>
<td>Mean (SD) over 20 sessions</td>
<td>53.65</td>
<td>54.90</td>
<td>42.65</td>
<td>36.90</td>
<td>27.30</td>
<td>51.05</td>
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<td></td>
<td>(26.53)</td>
<td>(19.54)</td>
<td>(14.20)</td>
<td>(8.25)</td>
<td>(10.97)</td>
<td>(8.81)</td>
</tr>
<tr>
<td><strong>Average inhibition on DIS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session 1</td>
<td>85</td>
<td>53</td>
<td>43</td>
<td>53</td>
<td>68</td>
<td>52</td>
</tr>
<tr>
<td>Session 20</td>
<td>10</td>
<td>35</td>
<td>42</td>
<td>31</td>
<td>55</td>
<td>59</td>
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<tr>
<td>Minimum over 20 sessions</td>
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<td>25</td>
<td>33</td>
<td>31</td>
<td>31</td>
<td>42</td>
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<tr>
<td>Maximum over 20 sessions</td>
<td>85</td>
<td>71</td>
<td>70</td>
<td>63</td>
<td>85</td>
<td>62</td>
</tr>
<tr>
<td>Mean (SD) over 20 sessions</td>
<td>40.50</td>
<td>47.55</td>
<td>51.20</td>
<td>49.15</td>
<td>62.50</td>
<td>52.35</td>
</tr>
<tr>
<td></td>
<td>(23.88)</td>
<td>(12.05)</td>
<td>(11.44)</td>
<td>(11.13)</td>
<td>(14.40)</td>
<td>(5.17)</td>
</tr>
<tr>
<td><strong>Affective capacity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session 1</td>
<td>0.01</td>
<td>0.58</td>
<td>0.67</td>
<td>0.74</td>
<td>0.07</td>
<td>0.96</td>
</tr>
<tr>
<td>Session 20</td>
<td>8.20</td>
<td>1.46</td>
<td>1.21</td>
<td>1.32</td>
<td>0.75</td>
<td>1.03</td>
</tr>
<tr>
<td>Minimum over 20 sessions</td>
<td>0.01</td>
<td>0.40</td>
<td>0.32</td>
<td>0.40</td>
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<td>Maximum over 20 sessions</td>
<td>8.20</td>
<td>3.60</td>
<td>1.64</td>
<td>1.42</td>
<td>0.90</td>
<td>1.55</td>
</tr>
<tr>
<td>Mean (SD) over 20 sessions</td>
<td>2.52</td>
<td>1.30</td>
<td>0.88</td>
<td>0.80</td>
<td>0.48</td>
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</tr>
<tr>
<td></td>
<td>(2.53)</td>
<td>(0.78)</td>
<td>(0.37)</td>
<td>(0.30)</td>
<td>(0.24)</td>
<td>(0.22)</td>
</tr>
</tbody>
</table>
**Participant Results According to Hypotheses**

**Participant 1.**

Participant 1 achieved clinical and statistically significant change over the course of therapy on the BDI ($Z = 4.60$, $p < .001$), CORE-OM ($Z = 4.96$, $p < .001$) and IIP-SC ($Z = 5.71$, $p < .001$), see Table 2. On testing hypothesis 1, there was a significant positive correlation between affective capacity and session number ($r_s = .943$, $N = 20$, $p = .000$, one-tailed). This is demonstrated in Figure 3. In terms of hypothesis 2, there was a significant negative correlation between affective capacity and symptom distress, both on the BDI ($r_s = -.428$, $N = 19$, $p = .034$, one-tailed) and the CORE-OM ($r_s = -.717$, $N = 19$, $p = .000$, one-tailed), this is illustrated in Figures 4 and 5 respectively. Hypothesis 3 concerned the affective capacity and working alliance. In P1 a positive correlation was found between affective capacity and working alliance, although this was on the borderline of statistical significance ($r_s = .378$, $N = 20$, $p = .050$, one-tailed). Closer inspection of this participant’s scores on the WAI shows minimal variation in scores however (mean 83.95, SD 0.22 - see Table 3), so the validity of this result is questionable. The results from P1 suggest that it is possible to accept each of the three hypotheses.
Figure 3. Affective capacity and session number P1

Figure 4. Affective capacity and scores on BDI for P1
Participant 2.

Similarly to P1, P2 demonstrated statistically significant change on each of the measures of distress. Scores from the RCI were significant between assessment and the end of therapy on the BDI ($Z = 5.63, p < .001$), CORE-OM ($Z = 4.96, p < .001$) and IIP-SC ($Z = 2.38, p < .05$), see Table 2. In terms of hypothesis 1, there was a significant positive correlation between affective capacity and session number ($r_s = .560, N = 20, p = .005$, one-tailed). This is demonstrated in Figure 6. Testing for hypothesis 2 revealed a significant negative correlation between affective capacity and both measures of symptom distress (BDI; $r_s = -.448, N = 19, p = .027$, one-tailed; CORE-OM $r_s = -.416, N = 19, p = .038$, one-tailed) see Figures 7 and 8. Concerning hypothesis 3, although data from one session was missing, a significant positive correlation was found between affective capacity and working alliance ($r_s = .783, N = 19, p = .000$, one-tailed). This correlation is
illustrated in Figure 9. Similarly to P1, the results from P2 suggest that it is possible to accept each of the three hypotheses.

**Figure 6.** Affective capacity and session number P2

![Figure 6](image)

**Figure 7.** Affective capacity and scores on BDI for P2

![Figure 7](image)
Figure 8. Affective capacity and scores on CORE-OM for P2

Figure 9. Affective capacity and working alliance P2
Participant 3.

Participant 3 demonstrated both clinical and statistically significant change on the BDI ($Z = 3.07, p < .01$) and CORE-OM measures ($Z = 1.98, p < .05$) but although scores on the IIP-SC decreased, the change was not statistically significant ($Z = 1.74$), see Table 2. On testing hypothesis 1, there was no significant correlation between affective capacity and session number ($r_s = .305, N = 20, p = .095$, one-tailed). Interestingly, further analysis revealed a significant positive correlation between affect experiencing and session number in this participant ($r_s = .506, N = 20, p = .011$, one-tailed). This was not matched however, by a significant reduction in the degree of inhibition ($r_s = .117, N = 20, p = .311$, one-tailed), see Figure 10, hence the insignificant change in affective capacity. Inspection of Figure 10 suggests that in the last quartile of therapy, progress was being made in the expected directions with an apparent trend towards an increase in affect experiencing and a decrease in levels of inhibition. For hypothesis 2, there was no significant correlation between affective capacity and measures of symptom distress (BDI, $r_s = .321, N = 20, p = .083$, one-tailed; CORE-OM, $r_s = .375, N = 20, p = .520$, one-tailed). With regard to hypothesis 3, no significant correlation was found between affective capacity and alliance scores ($r_s = -.127, N = 20, p = .297$, one-tailed). Results from P3 do not support any of the hypotheses.
Participant 4.

Participant 4 also demonstrated both clinical and statistically significant change on the BDI ($Z = 12.78, p < .001$) and CORE-OM measures ($Z = 5.13, p < .001$) see Table 2. Similarly to P3, scores on the IIP-SC decreased but this was not statistically significant ($Z = 1.21$). In terms of hypothesis 1, no significant correlation was found between affective capacity and session number ($r_s = -.047, N = 20, p = .423$). The patterns of affect experiencing and levels of inhibition for this participant are illustrated in Figure 11. Inspection of the trends in the two process measures indicates a degree of instability in the mid phase of therapy from session 8 to session 11. Although levels of inhibition decreased during this phase of therapy this appears to have been followed by a decrease in affect experiencing. Towards the last quartile of therapy levels of affect experiencing rise however, this is accompanied by an increase in levels of inhibition. Interestingly, further analysis indicates a reduction in the working alliance in
sessions 5 to 8, which immediately preceded the period of instability. This is demonstrated in Figure 12. For hypothesis 2, no significant correlation was found between affective capacity and reported symptom distress (BDI, $r_s = -.177, N = 20, p = .227$, one-tailed; CORE-OM, $r_s = .113, N = 20, p = .317$, one-tailed). For hypothesis 3, no significant correlation was found between affective capacity and working alliance scores although data from two sessions were missing ($r_s = .052, N = 18, p = .418$, one-tailed). The results from P4 do not support any of the hypotheses.

Figure 11. Affect experiencing and degree of inhibition P4
Participant 5.

Participant 5 did not achieve clinical change on either the BDI or CORE-OM measures. This participant scored within the range for severe depression on the BDI both at assessment and at the end of the study period (see Table 2). Reported distress as measured by the CORE-OM actually increased slightly over the course of therapy. Scores on the IIP-SC did however reduce slightly although this change was not statistically significant (Z = 1.24). With reference to hypothesis 1, although this participant did not demonstrate a change in her clinical condition over the course of the study, a significant positive correlation was found between affective capacity and session number ($r_s = .535$, $N = 20$, $p = .008$, one-tailed). This correlation is illustrated in Figure 13. Further analysis revealed a significant positive correlation between affect experiencing and session number in this participant ($r_s = .594$, $N = 20$, $p = .003$, one-tailed), this was not matched by a significant reduction in the degree of inhibition however ($r_s$
= -.328, \( N = 20, p = .079 \), one-tailed), see Figure 14. For hypothesis 2, no significant correlation was found between affective capacity and measures of symptom distress (BDI, \( r_s = .424, N = 20, p = .031 \), one-tailed; CORE-OM, \( r_s = .104, N = 20, p = .332 \), one-tailed). In terms of hypothesis 3, no significant correlation was found between affective capacity and working alliance scores (\( r_s = -.034, N = 20, p = .444 \), one-tailed). The results from P5 offer some support for hypothesis 1 that affective capacity would increase with session number. Hypotheses 2 and 3 are not supported by this participant’s results however.

**Figure 13.** Affective capacity and session number P5
Figure 14. Affect experiencing and degree of inhibition P5

Participant 6.

Similarly to P5, P6 did not achieve clinical change on either the BDI or CORE-OM measures. This participant scored within the range for severe depression on the BDI both at assessment and at the end of the study period and her score increased on both the BDI and CORE-OM over the course of therapy (Table 2). Scores on the IIP-SC also increased over the study period. In terms of hypothesis 1, no significant correlation was found between affective capacity and session number ($r_s = .019, N = 20, p = .469$, one-tailed). Further analysis showed that there was no significant correlation between either affect and session number ($r_s = .132, N = 20, p = .289$, one-tailed) or inhibition and session number ($r_s = .258, N = 20, p = .136$, one-tailed). Although these correlations between affect, inhibition, and session number were not significant, levels of both affect and inhibition were comparatively high throughout the duration of the
therapy (Figure 15). The descriptive statistics in Table 4 demonstrate that P6 had the third highest levels of mean affect of all the participants (mean 51.05, SD 8.81). This was matched with consistently high levels of inhibition however (mean 52.35, SD 5.17); hence the insignificant change in the affective capacity. For hypothesis 2, no significant correlation was found between affective capacity and reported distress (BDI, $r_s = -0.128$, $N = 20$, $p = .295$, one-tailed; CORE-OM, $r_s = .012$, $N = 20$, $p = .480$, one-tailed). With regards to hypothesis 3, and of interest given this participant’s poor outcome, a significant positive correlation was found between affective capacity and working alliance ($r_s = .566$, $N = 20$, $p = .005$, one-tailed). This is illustrated in Figure 16.

**Figure 15.** Affect experiencing and degree of inhibition P6
Summary of Results

The results from participants 1 and 2 suggest that each of the hypotheses can be accepted. The results from participants 3 and 4 do not support any of the hypotheses. Hypothesis 1, that affective capacity is positively correlated with session number is supported by data from participant 5. Hypothesis 3, testing for a positive correlation between affective capacity and working alliance is supported by the results from participant 6. The results are summarized in Table 5.
Table 5. Summary of results

<table>
<thead>
<tr>
<th>Participant</th>
<th>Recovered</th>
<th>Improved</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1. Affective capacity and session number</td>
<td>Yes*</td>
<td>Yes</td>
<td>No**</td>
</tr>
<tr>
<td>H2. Affective capacity and reported symptom distress</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>H3. Affective capacity and working alliance</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

*Yes - Hypothesis supported  
**No - Hypothesis not supported

Appraisal of the results (Table 5) shows that affective capacity increased over the course of therapy in three participants (P1, P2, and P5). Increased affective capacity was associated with a reduction in symptom distress in those patients who recovered (P1 and P2). A positive correlation was found between affective capacity and working alliance scores in both participants who recovered (P1 and P2) and in one of the participants with a poorer outcome (P6). Overall, the relationship between affective capacity and each of the three variables measured (session number, reported distress and working alliance) was stronger in those with a better outcome.

Discussion

In this study, 10-minute segments from 20 consecutive sessions of ISTDP in six participants were studied to explore the relationship between affect experiencing, degree of inhibition and distress.

Two of the six participants (P1 and P2) could be considered as having recovered in terms of their scores on post-therapy measures of distress. In these participants affective capacity increased over the course of therapy and was
associated with a reduction in symptom distress. The demonstration of the gradual development over the course of therapy in affective capacity is important. It suggests that this is an ability that has been acquired in therapy, rather than a skill the patient presented with (Pos, Greenberg, Goldman, & Korman, 2003). This idea that the patient can be taught to process feelings in an experiential therapy is supported to some extent in the present study by the results of the pre and post therapy scores on the TAS-20. Both participants who recovered (P1 and P2) demonstrated statistically significant change on the measure (see Table 2).

There are however alternative explanations for this apparent improvement in alexithymia. Self-report forms such as the TAS-20 (and indeed the other outcome measures used in this study) require the ability to be self-reflective. Improvement in scores could therefore be attributed to an increase in the ability to reflect on feelings and problems. An association has also been found between negative affectivity and high scores on the TAS-20 (Lumley, 2000) so an apparent reduction in alexithymia could be attributed to symptom improvement.

McCullough et al. (2009) conducted the only other study known to have explored the concept of affective capacity (i.e. the covariation of affect experiencing and degree of inhibition). Similarly to the present study, McCullough et al. found that affective capacity increased over the course of therapy. The present study showed that, when explored in the context of a reduction in inhibition, affect experiencing is associated with a decrease in symptom distress in those participants who recovered. McCullough et al. also found that affective capacity was significantly higher in those patients with better outcomes. Additionally, they
found that the level of affective capacity in the final session positively correlated with a composite outcome score at the two-year follow-up stage.

Comparison of the results of the present study with the wider body of literature is somewhat restricted, as most other studies have considered the two variables of affect and inhibition separately. The majority of studies have focused on affect experiencing. For example, in terms of trends in affect, Kiesler (1971) found that a change in the level of experiencing over the course of therapy was unrelated to outcome. However, Watson and Bedard (2006) found an increase in levels of affect experiencing from baseline to mid-therapy in participants with a better outcome. In terms of affect experiencing and distress, some studies have found that the amount of emotional expression in experiential psychotherapy was positively correlated with good outcome (Coombs et al., 2002; Kiesler, 1971; Nichols, 1974; Watson & Bedard, 2006). Other researchers have failed to demonstrate a correlation between emotional discharge and outcome (e.g. Bierenbaum et al., 1976). The discrepancies in these findings suggests that it is important to consider the affect variable in context, as in this study which looked at the ratio of affect and inhibition.

Compared with studies on affect experiencing, there is a relative paucity of research on patterns of in-session inhibition. Early studies suggested that emotive therapies were associated with increased levels of anxiety (Bierenbaum et al., 1976; Nichols, 1974) but the relationship between in-session inhibition and affect experiencing was not examined. Coombs et al. (2002) noted higher levels of a patient inhibition variable in an experiential therapy when compared to
people undergoing a course of CBT. This was also the finding in a study by McCullough et al. (2009). McCullough et al.’s comparison of levels of inhibitory affects in STDP and cognitive therapy also showed a decrease in levels of inhibition in both therapies, although their study spanned 36 sessions rather than the 20 included here.

In terms of working alliance, affective capacity was shown to correlate with the working alliance client score; this was the case with both of the participants who recovered (although one result was marginal) and one who showed no improvement. The relationship between a positive therapeutic alliance and success in therapy is a consistent finding in psychotherapy research (Horvath & Luborsky, 1993). Research into the role of alliance in STDP also consistently demonstrates a positive relationship between alliance and outcome (Svartberg et al., 1998). It is therefore unsurprising that the participants with the best outcome in this study also reported a strong alliance.

The remaining participants showed somewhat different patterns of change. The two patients who showed improvement but little change on the interpersonal outcome measure did not demonstrate a significant increase in affective capacity over the course of therapy. As was the case with these participants, previous studies on emotional processing in experiential therapy have also found that change was more likely to be evident on measures relating to self rather than interpersonal difficulties (Goldman, et al. 2005; Pos et al., 2003). The authors suggest that changes in the self may take time to impact on interpersonal functioning.
Participant 3 did show improvement in affect experiencing over time but not inhibition, which adds weight to Taurke’s (1990) argument that it is affect experiencing in relation to other indicators that are important for change.

As indicated in Table 1, participant 4 was unique in presenting with a diagnosis of hypomania with rapid cycling depression. The fluctuations in her mood are evident in Figure 1. Despite this presentation it is encouraging that the severity and frequency of the peaks in her depression reduced over the course of therapy. Levels of affect experiencing appear to be increasing in the last quartile of therapy (Figure 11). This increase in affect experiencing is apparently mirrored with a developing alliance over the same time frame (Figure 12).

The remaining two participants in the present study (P5 and P6) demonstrated no change on any of the outcome measures. Despite showing no improvement in terms of symptom distress, P5 demonstrated a significant increase in affective capacity over the course of therapy. She also demonstrated a significant increase in affect experiencing over the same time frame. Inspection of Figure 14 suggests that the general trend in behaviour was towards an increase in affect experiencing and a slight decrease in inhibition, although the latter was not at the level to achieve statistical significance. The graph also reveals that at no point did levels of inhibition fall below affect experiencing. The descriptive statistics in Table 4 show that when compared to the other participants, P5 had the highest average levels of inhibition (mean 62.50, SD 14.40). She also had the lowest average levels of affect (mean 27.30, SD 10.97). Analysis of the results of P5
raises the possibility that a decrease in levels of inhibition is more pertinent in terms of symptom improvement than an increase in affect experiencing.

The results from P6 concerning therapeutic alliance require explanation. This participant did not demonstrate a change in reported symptom distress and her affective capacity did not develop over the duration of therapy. A positive correlation was found between affective capacity and alliance however. As described above, although no increasing trend was identified, levels of affect experiencing were relatively high across the 20 sessions (mean 51.05, SD 8.81 - see Table 4). Goldman et al. (2005) found that affect experiencing later rather than early in the course of therapy was predictive of symptom change over and above the change predicted by the alliance. Thus although the alliance correlated with affective capacity, it might be that the inability to significantly increase affect experiencing was the determining factor in this participant’s poor outcome. In comparison to the other participants, P5 and P6 had consistently high levels of inhibition relative to affect experienced. It might be the case that when levels of inhibition get to a certain level, the patient is significantly negatively effected. This would emphasise the importance of an accurate psycho-diagnostic assessment of a patient's ability to tolerate anxiety and the role of graded work to increase anxiety tolerance.

The finding in this study that affective capacity and working alliance correlated in a patient with a poorer outcome (P6) in addition to the two participants who recovered (P1 and P2) is interesting. Participants 1, 2 and 6 who demonstrated this significant positive correlation between affective capacity and alliance also
had the highest mean affect scores over the duration of the study (Table 4). There is evidence that the processes underlying affect experiencing and alliance are interrelated. Goldman et al. (2005) found a positive correlation between affect experiencing and alliance in the second half of therapy. It is of interest therefore that in this study a positive correlation was found between affective capacity and working alliance.

This finding is consistent with a review of the literature of therapist techniques impacting the therapeutic alliance (Ackerman & Hilsenroth, 2003). This review found that techniques which facilitate expression of affect, such as those used in ISTDP, contribute positively to the alliance. Although affective capacity and alliance were not significantly correlated in the other three participants, inspection of the trends in alliance in Figure 2 suggests that in general participants reported a good working alliance.

In one of the few studies to separate therapist and patient variability in the alliance, Baldwin, Wampold, and Imel, (2007) found that the strength of the alliance did not predict outcome within the caseload of an individual therapist. Missirlian, Toukmanian, Warwar, and Greenberg (2005) also found that working alliance differentially predicted treatment gains in experiential therapy. These findings would suggest that the results of the present study, in which the quality of the alliance is associated with different outcomes, are not altogether surprising. Baldwin et al. also found that alliance was not a consequence of early symptom change. This might account for the fluctuations in the alliance scores in
participants 3 and 4 (Figure 2) despite the overall improvement in their conditions (Figure 1).

In participants 3, 4, 5 and 6, the therapy period was extended past the 20 sessions included in this study. The results of this study do not therefore reflect the outcome of the entire therapeutic course for each participant. What is clear however, from examination of the disparate results in the present study, is that treatment progress in ISTDP was not uniform in the study participants. Discussion of the results has attempted to offer possible explanations for this irregularity.

**Clinical implications**

The results of this study suggest that an increase in affect experiencing and reduction in the degree of inhibition (an overall increase in affective capacity) were associated with improvement in symptom distress. In terms of the therapeutic endeavour, these findings validate the emphasis in ISTDP on supporting the patient to experience unconscious emotions through a cyclical process that builds anxiety tolerance (Davanloo, 2005).

Although between-participant analysis was limited in this study by the small sample size, it is apparent from consideration of the outcome data that there were marked differences in the progress that this group of participants made (see Figure 1). This underlines the value of weekly monitoring of symptom distress to inform the therapist of the patient’s progress. It also emphasises the importance of clinical judgement in tailoring an intervention to suit the needs of an individual.
Once the therapeutic work is underway, the therapist should probably consider changing the therapeutic approach when working with those patients who do not exhibit the patterns of affect/inhibition that this study identifies as useful. Conversely when patients start to demonstrate an increase in affective capacity, the therapist can be assured that she/he is heading in the right direction (McCullough et al., 1991).

These results could have training implications, for example, in providing specific guidance when training new therapists to deliver better interventions. Trainee therapists could be taught about the clinical utility of working with and understanding affect as a ratio (Taurke et al., 1990). The clinician’s efforts might then be usefully directed in therapy at helping patients to progress by either facilitating the expression of affect or lowering their degree of inhibition.

One of the questions considered crucial in research on STDP is the nature of training required by practitioners (Barber & Foltz, 1999). Barber and Foltz note that many of the theorists who have developed this treatment have extensive experience in the fields of psychoanalysis and the delivery of long-term psychodynamic therapies. The therapist in this study had been qualified for two years at the commencement of the project and although in receipt of specialist supervision and training, he did not have the background that Barber and Foltz refer to. The results of this study therefore suggest that with the appropriate training and supervision, extensive experience in the delivery of traditional psychodynamic therapies is not necessary to practice ISTDP effectively. The findings from this study suggest that novice ISTDP practitioners should focus
their efforts on increasing their patients’ affective capacity. Those supervising them could take into consideration the demonstration of their ability to increase affective capacity when appraising their level of competence and also to plan future training requirements.

**Critique of methodology**

This study has a number of limitations. Conducting detailed analysis of psychotherapy process is both labour-intensive and time-consuming. These constraints mean that the sample size is often restricted, as in the present study, with a resulting loss of statistical power that limits the conclusions that can be drawn (Greenberg & Malcolm, 2002). An additional limiting factor in this study is that the participants were mixed in terms of demographics and presenting conditions. This lack of homogeneity reflects the reality of clinical practice and along with the small sample size and study design, means that extrapolation from the results to other populations is not possible. The use of a correlational design also means that cause and effect relationships cannot be established. Despite these limitations the present study was able to show that the relationships between key process variables is stronger in participants with a better outcome. The value of case series studies such as this, in identifying hypotheses for future large-scale empirical study, is thus demonstrated.

One of the underlying principles of single case designs is that a stable pre-intervention baseline is achieved in order to demonstrate clinical change following the introduction of the intervention (Turpin, 1998). As Figure 1 demonstrates, the baseline scores on the distress measures in each of the six
participants were variously unstable. This reduced the confidence with which it was possible to say that the intervention resulted in therapeutic change. This may be a reflection of the varying amounts of time between the three data collection points and is a limitation of this clinic-based study. However, exploratory process research studies, such as the present study, aim to describe what occurs in psychotherapy sessions, rather than to show that an intervention worked (Hill, 1990). This study showed that the observation of clinical phenomena and the collection of practice-based evidence could be useful in identifying hypotheses that should be investigated further.

The reliance on self-report measures for the outcome variable was another potential limiting factor in this study. Participants may not have provided reliable appraisals of their difficulties, either over or under reporting their symptoms, and clinical interview might have proven a more reliable way to appraise progress and outcome.

Finally, in terms of limitations, one of the coders had a dual role as she was also the principle researcher and therefore knew the hypotheses of the study. This could have biased the appraisal of the behaviours studied in the expected direction but was countered to a certain extent by the use of two coders and the requirement to reach consensus.

This piece of process research was the first to explore the impact of affect experiencing and inhibition on outcome in ISTDP. The study has also demonstrated the utility of the case series in exploring patient change processes.
In these types of studies the lack of statistical power needs to be compensated for by careful experimental design (Turpin, 1998) and a number of design features increased the quality of this study. Methods used in process research need to be sufficiently complex to tap patterns in process and thus facilitate the discovery of associations (Jones, Cumming, & Horowitz, 1988). By measuring two process variables in context, rather than as isolated concepts, this study achieved this.

Another strength of this study was the use of an events paradigm (rather than random sampling) and the focus on clinically significant moments in every session. This is an appropriate and powerful way to explore therapeutic process (Greenberg, 1986). The relationship between process variables such as emotional arousal and outcome variables depends on the stage of therapy at which they are measured (Missirlian et al., 2005) and sampling each session circumvented this issue. Lack of leverage, when processes are measured at only a few points and correlated against outcome at termination, is a common problem in process-outcome research (Stiles, 1988). Measuring process and outcome in every session addressed this problem.

The way in which the process variables were measured was a particular strength of this study. The ATOS is designed to specifically assess the patients’ behavioural attainment of specific treatment objectives (McCullough, Larsen, et al., 2003). The use of the ATOS scale by trained observers on videotaped segments of psychotherapy sessions was a valid means of gathering data. It was also a more effective way of quantifying emotion than the use of less specific
tools, which are usually applied to transcripts of psychotherapy sessions (see for example Greenberg & Foerster, 1996; Greenberg & Malcolm, 2002; Watson, 1996; Watson & Greenberg, 1996).

**Future research**

Replication of these findings with a larger sample is required to verify the significance of the relationships reported. In addition the use of randomised controlled trials to explore this subject would be useful as cause and effect relationships could be demonstrated. This would illuminate debates such as the possibility that emotional processing improves as mental health problems such as depression subside, i.e. that emotional processing is a consequence of improvement in mental health rather than being the cause of the improvement (Pos et al., 2003).

The results of the present study offer tentative support for the emphasis in ISTDP on mobilizing unconscious emotions. Although a reduction in inhibition and concurrent increase in levels of experiencing appear to be necessary, it is still not clear whether these processes are sufficient to bring about therapeutic change in this model. Affect experiencing has been shown to be only one of the components of the therapeutic process in other studies. For example, in addition to the expression of affect, expressions of blame and eventual forgiveness (Greenberg, Rice, & Elliott, 1993) and the expression of need (Greenberg & Foerster, 1996) are also deemed necessary components. These two studies are from a number of similar studies carried out by Greenberg and colleagues (see also Greenberg & Malcolm, 2002) that have built and tested models of change
based on specific theories of conflict resolution. Rather than adopting an events paradigm (as in the present study), Greenberg and colleagues use a task analysis approach to test explanatory models of processes thought to be involved in therapy. Researchers working from an ISTDP perspective could usefully employ this approach to test their particular model of change. This would involve microanalysis of the relevant components of the therapy (e.g. defence relinquishing) and detailed investigation of the sequence of change, rather than simply tracking correlations.

In addition to broadening the focus from affect experiencing to the consideration of other components, it would also be pertinent to explore other qualities of the expressed affect in ISTDP, rather than purely its quantity. Affective and cognitive processes are thought to be highly integrated and some researchers consider that it is these cognitive-affective structures that are important targets of treatment (Pos et al., 2003). Recent studies suggest that in order to be useful to the patient, emotion needs to be processed as well as accessed (Greenberg, Auszra, & Herrmann, 2007; Greenberg, Warwar, & Malcolm, 2008). Future research could therefore incorporate a measurement of cognitive processing to test this in ISTDP. There is a growing body of evidence concerning the transformation of emotions, a process where a maladaptive emotion, such as hurt, is undone in the presence of a more adaptive emotion, such as love (Greenberg et al., 2008). It would also be interesting therefore to study the types of emotion experienced in ISTDP.
Future research efforts might also operationalise the process components in different ways. In addition to the measurement of behavioural aspects of affect and inhibition (using scales such as the ATOS) there is likely to be utility in combining methods to measure process components. Other methods that might be considered include measuring client vocal quality (e.g. Greenberg & Foerster, 1996; Greenberg & Malcolm, 2002) and using physiological measures of arousal (e.g. Bridges, 2006).

Conclusion

This study used a case series design to examine the relationship between affect experiencing, degree of inhibition and outcome in participants undergoing a course of ISTDP. Of the six participants, two could be classified as having recovered in terms of their scores on post-therapy measures of symptom distress and interpersonal functioning. Two others showed improvement and the remaining two showed no change. The results of the study showed that in those participants who recovered, affective capacity increased over the course of therapy. In these two participants the rising trend in affective capacity was associated with a reduction in weekly reported symptom distress. The development in affective capacity was associated with a similar increase in working alliance. Overall the relationships between affective capacity and each of the three variables measured (session number, reported distress and working alliance) were stronger in those with a better outcome. These results offer tentative support to the theory underlying the practice of ISTDP. Despite the limitations of the design, this study demonstrated the value of a case series in identifying hypotheses worthy of future empirical investigation.


Section 3

Appendices
Appendix 1 - Formats

1a  Letter of approval of specified journals
1b  Instructions for authors for *Clinical Psychology Review*
1c  Instructions for authors for *British Journal of Clinical Psychology*
Appendix 1a - Letter of approval of specified journals

Department of Psychology
Clinical Psychology Unit.
Doctor of Clinical Psychology (DClin Psy) Programme
Clinical supervision training and NHS research training & consultancy.

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9 February 2010

Alison Salvadori
Third year trainee
Clinical Psychology Unit
University of Sheffield

Dear Alison

I am writing to indicate our approval of the journal(s) you have nominated for publishing work contained in your research thesis.

**Literature Review:** Clinical Psychology Review

**Research Report:** British Journal of Clinical Psychology

Please ensure that you bind this letter and copies of the relevant Instructions to Authors into an appendix in your thesis.

Yours sincerely

[Signature]

Dr Andrew Thompson
Director of Research Training
Appendix 1b - Instructions for authors for *Clinical Psychology Review*

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Preparation
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. Do not embed “graphically designed” equations or tables, but prepare these using the word processor's facility. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier: http://www.elsevier.com/guides). Do not import the figures into the text file but, instead, indicate their approximate locations directly in the electronic text and on the manuscript. See also the section on Electronic illustrations.

To avoid unnecessary errors you are strongly advised to use the "spell-check" and "grammar-check" functions of your word processor.

**Article structure**

Manuscripts should be prepared according to the guidelines set forth in the Publication Manual of the American Psychological Association (6th ed., 2009).

Manuscripts should ordinarily not exceed 50 pages. Exceptions may be made with prior approval of the Editor in Chief for manuscripts including extensive tabular or graphic material, or appendices.

**Appendices**

If there is more than one appendix, they should be identified as A, B, etc. Formulas and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on.

**Essential title page information**

**Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible. **Note:** The title page should be the first page of the manuscript document indicating the author's names and affiliations and the corresponding author's complete contact information.

**Author names and affiliations.** Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author within the cover letter.

**Corresponding author.** Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.

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Abstract

A concise and factual abstract is required (not exceeding 200 words). This should be typed on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separate from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list.

Graphical abstract

A Graphical abstract is optional and should summarize the contents of the paper in a concise, pictorial form designed to capture the attention of a wide readership online. Authors must provide images that clearly represent the work described in the paper. Graphical abstracts should be submitted as a separate file in the online submission system. Maximum image size: 400 × 600 pixels (h × w, recommended size 200 × 500 pixels). Preferred file types: TIFF, EPS, PDF or MS Office files. See http://www.elsevier.com/graphicalabstracts for examples.

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Research highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate file in the online submission system. Please use 'Research highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters per bullet point including spaces). See http://www.elsevier.com/researchhighlights for examples.

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Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, "and", "of"). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Abbreviations

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Footnotes
Arabic numbers. Many wordprocessors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

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Indicate each footnote in a table with a superscript lowercase letter.

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Regardless of the application used, when your electronic artwork is finalised, please "save as" or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
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- TIFF: Color or grayscale photographs (halftones): always use a minimum of 300 dpi.
- TIFF: Bitmapped line drawings: use a minimum of 1000 dpi.
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**Please do not:**
- Supply embedded graphics in your wordprocessor (spreadsheet, presentation) document;
- Supply files that are optimised for screen use (like GIF, BMP, PICT, WPG); the resolution is too low;
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Please make sure that artwork files are in an acceptable format (TIFF, EPS or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color on the Web (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version.

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Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.
Tables

Number tables consecutively in accordance with their appearance in the text. Place footnotes to tables below the table body and indicate them with superscript lowercase letters. Avoid vertical rules. Be sparing in the use of tables and ensure that the data presented in tables do not duplicate results described elsewhere in the article.

References

Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 1-4338-0559-6, copies of which may be ordered from http://books.apa.org/books.cfm?id=4200067 or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3E 8LU, UK. Details concerning this referencing style can also be found at http://humanities.byu.edu/linguistics/Henrichsen/APA/APA01.html

Citation in text

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As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

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Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

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Reference style

References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication. References should be formatted with a hanging indent (i.e., the first line of each reference is flush left while the subsequent lines are indented).
The art of writing a scientific article. *Journal of Scientific Communications*, 163, 51-59.


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It is hoped that this list will be useful during the final checking of an article prior to sending it to the journal's Editor for review. Please consult this Guide for Authors for further details of any item.

**Ensure that the following items are present:**

- One Author designated as corresponding Author:
  - E-mail address
  - Full postal address
  - Telephone and fax numbers
- All necessary files have been uploaded
  - Keywords
  - All figure captions
  - All tables (including title, description, footnotes)
- Further considerations
• References are in the correct format for this journal
• All references mentioned in the Reference list are cited in the text, and vice versa
• Permission has been obtained for use of copyrighted material from other sources (including the Web)
• Color figures are clearly marked as being intended for color reproduction on the Web (free of charge) and in print or to be reproduced in color on the Web (free of charge) and in black-and-white in print
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Appendix 1c - Instructions for authors for
British Journal of Clinical Psychology

British Journal of Clinical Psychology (BJCP)

Notes for Contributors

The British Journal of Clinical Psychology publishes original contributions to scientific knowledge in clinical psychology. This includes descriptive comparisons, as well as studies of the assessment, aetiology and treatment of people with a wide range of psychological problems in all age groups and settings. The level of analysis of studies ranges from biological influences on individual behaviour through to studies of psychological interventions and treatments on individuals, dyads, families and groups, to investigations of the relationships between explicitly social and psychological levels of analysis.

The following types of paper are invited:

- Papers reporting original empirical investigations
- Theoretical papers, provided that these are sufficiently related to the empirical data
- Review articles which need not be exhaustive but which should give an interpretation of the state of the research in a given field and, where appropriate, identify its clinical implications
- Brief reports and comments

1. Circulation

The circulation of the Journal is worldwide. Papers are invited and encouraged from authors throughout the world.

2. Length

Papers should normally be no more than 5000 words (excluding abstract, reference list, tables and figures), although the Editor retains discretion to publish papers beyond this length in cases where the clear and concise expression of the scientific content requires greater length.

3. Submission and reviewing

All manuscripts must be submitted via our online peer review system. The Journal operates a policy of anonymous peer review.

4. Manuscript requirements

- Contributions must be typed in double spacing with wide margins. All sheets must be numbered.
- Tables should be typed in double spacing, each on a separate page with a self-explanatory title. Tables should be comprehensible without reference to the text. They should be placed at the end of the manuscript with their approximate locations indicated in the text.
- Figures can be included at the end of the document or attached as separate files, carefully labelled in initial capital/lower case lettering with symbols in a form consistent with text use. Unnecessary background patterns, lines and shading should be avoided. Captions should be...
For articles containing original scientific research, a structured abstract of up to 250 words should be included with the headings: Objectives, Design, Methods, Results, Conclusions. Review articles should use these headings: Purpose, Methods, Results, Conclusions. Please see the document below for further details:

**British Journal of Clinical Psychology - Structured Abstracts Information**

- For reference citations, please use APA style. Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full.
- SI units must be used for all measurements, rounded off to practical values if appropriate, with the imperial equivalent in parentheses.
- In normal circumstances, effect size should be incorporated.
- Authors are requested to avoid the use of sexist language.
- Authors are responsible for acquiring written permission to publish lengthy quotations, illustrations, etc. for which they do not own copyright.

For guidelines on editorial style, please consult the *APA Publication Manual* published by the American Psychological Association.

### 5. Brief reports and comments

These allow publication of research studies and theoretical, critical or review comments with an essential contribution to make. They should be limited to 2000 words, including references. The abstract should not exceed 120 words and should be structured under these headings: Objective, Method, Results, Conclusions. There should be no more than one table or figure, which should only be included if it conveys information more efficiently than the text. Title, author name and address are not included in the word limit.

### 6. Publication ethics

All submissions should follow the ethical submission guidelines outlined the the documents below:

- Ethical Publishing Principles – A Guideline for Authors

### 7. Supplementary data

Supplementary data too extensive for publication may be deposited with the *British Library Document Supply Centre*. Such material includes numerical data, computer programs, fuller details of case studies and experimental techniques. The material should be submitted to the Editor together with the article, for simultaneous refereeing.

### 8. Copyright

On acceptance of a paper submitted to a journal, authors will be requested to sign an appropriate assignment of copyright form. To find out more, please see our Copyright Information for Authors.
Structured abstracts—
The British Journal of Clinical Psychology

Authors should note that all papers submitted to the *British Journal of Clinical Psychology* must include structured abstracts. Papers will not be considered for publication unless they have a structured abstract in the correct format.

Articles containing original scientific research should include a structured abstract with the following headings and information:

<table>
<thead>
<tr>
<th>Objectives</th>
<th>State the primary objectives of the paper and the major hypothesis tested (if appropriate).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Describe the design of the study and describe the principal reasoning for the procedures adopted.</td>
</tr>
<tr>
<td>Methods</td>
<td>State the procedures used, including the selection and numbers of participants, the interventions or experimental manipulations, and the primary outcome measures.</td>
</tr>
<tr>
<td>Results</td>
<td>State the main results of the study. Numerical data may be included but should be kept to a minimum.</td>
</tr>
<tr>
<td>Conclusions</td>
<td>State the conclusions that can be drawn from the data provided and their clinical implications (if appropriate).</td>
</tr>
</tbody>
</table>

Review articles should include a structured abstract with the following headings:

<table>
<thead>
<tr>
<th>Purpose</th>
<th>State the primary objectives of the review.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods</td>
<td>State the method used to select studies for the review, the criteria for inclusion, and the way in which the material was analysed.</td>
</tr>
<tr>
<td>Results</td>
<td>State the main results of the review.</td>
</tr>
<tr>
<td>Conclusions</td>
<td>State the conclusions that can be drawn from the review and their clinical implications if appropriate.</td>
</tr>
</tbody>
</table>
Appendix 2 - For literature review

2a  Search terms employed
2b  Criteria used for quality appraisal
2c  Full details of studies included
2d  Quality appraisal profiles of studies included
Appendix 2a - Search terms employed in the literature review

Search terms entered into abstract and title fields to locate studies using relevant therapeutic approaches:

Accelerated empathic therapy
Accelerated experiential dynamic psychotherapy
AEDP
AFDP
Affect focused dynamic psychotherap*
Affect phobia
Brief dynamic psychotherap*
Brief dynamic therap*
Brief psychodynamic therap*
Brief psychotherap*
Client-centered therap*
Dynamic
Dynamic psychotherap*
EDT
EFT
Emotion focused
Emotive psychotherap*
Empathic
Experiential
Experiential dynamic psychotherap*
Experiential dynamic therap*
Experiential short-term dynamic psychotherap*
Experiential short-term psychotherap*
Expressive therap*
IE-DP
Intensive
Intensive experiential dynamic psychotherap*
Intensive short-term dynamic psychotherap*
Interpersonal
IPT
ISTDP
Process experiential
Psychodynamic
Psychodynamic interpersonal therap*
Psychodynamic psychotherap*  
Psychotherap*  
Short-term  
Short-term anxiety regulating psychotherap*  
Short-term dynamic psychotherap*  
Short-term psychotherap*  
STDP  
STPP  
Short-term Psychodynamic Psychotherapy  
Supportive-expressive therap*  
Therap*  

Search terms entered into title and abstract fields to locate studies addressing relevant process variables:

Affect  
Affect exp*  
Anger  
Angry  
Arousal  
Cathar*  
Crying  
Depth of  
Distress  
Emotion*  
Experiencing  
Expressi*  
Feeling  
Intensity  
Involvement  
Processing  
Verbalis*  
Verbaliz*  
Weeping
### Appendix 2b - Criteria used for quality appraisal of studies included in literature review

<table>
<thead>
<tr>
<th>Measure(s)</th>
<th>Criteria</th>
<th>Present?</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Process measure(s)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td>Is at least one reliability study associated with a process measure?</td>
<td>• Yes</td>
<td>• Adequate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No or not stated</td>
<td>• Inadequate</td>
</tr>
<tr>
<td>Validity</td>
<td>Is at least one validity study associated with a process measure?</td>
<td>• Yes</td>
<td>• Adequate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No or not stated</td>
<td>• Inadequate</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Is change over time considered?</td>
<td>• Over time</td>
<td>• Fully addressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pre and post</td>
<td>• Partially addressed</td>
</tr>
<tr>
<td>Perspective</td>
<td>Is one measure relied on or are multiple measures of process used?</td>
<td>• More than one</td>
<td>• Addressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One</td>
<td>• Not addressed</td>
</tr>
<tr>
<td></td>
<td>Are the measures just completed by the participant or are external/multiple perspectives used?</td>
<td>• Multiple</td>
<td>• Fully addressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Observer/judge</td>
<td>• Partially addressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Just participant</td>
<td>• Not addressed</td>
</tr>
</tbody>
</table>

(continued on next page)
<table>
<thead>
<tr>
<th>Category</th>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel of input used</td>
<td>Audio/video/transcript or combination</td>
<td>Video or combination, Audio or transcript, Fully addressed, Partially addressed</td>
</tr>
<tr>
<td>to rate process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precision</td>
<td>Was the unit of measurement molecular or global?</td>
<td>Molecular, Global or unclear, Addressed, Partially addressed</td>
</tr>
<tr>
<td>Order effects</td>
<td>Were order effects controlled for by mixing units to be measured or were they presented in order?</td>
<td>Mixed, Ordered/not stated, Addressed, Not addressed</td>
</tr>
<tr>
<td>Experience of raters</td>
<td>Were raters suitably trained &amp; experienced for the rating task?</td>
<td>Yes, No/not stated, Addressed, Inadequate</td>
</tr>
<tr>
<td>Outcome measure(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Is change over time considered?</td>
<td>Over time, Fully addressed, Pre and post, Partially addressed</td>
</tr>
<tr>
<td>Perspective</td>
<td>Is one measure relied on or are multiple measures of outcome used?</td>
<td>More than one, Addressed, One, Not addressed</td>
</tr>
</tbody>
</table>

(continued on next page)
<table>
<thead>
<tr>
<th>Channel of input for measures</th>
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<tr>
<td></td>
<td>• Combination</td>
</tr>
<tr>
<td></td>
<td>• One method</td>
</tr>
<tr>
<td></td>
<td>• Fully addressed</td>
</tr>
<tr>
<td></td>
<td>• Partially addressed</td>
</tr>
<tr>
<td></td>
<td>• Not addressed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coder bias</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Baseline emotionality</th>
<th>Was baseline emotionality assessed before session 3?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Yes</td>
</tr>
<tr>
<td></td>
<td>• No</td>
</tr>
<tr>
<td></td>
<td>• Addressed</td>
</tr>
<tr>
<td></td>
<td>• Not addressed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alliance</th>
<th>Was the role of therapeutic alliance taken into consideration?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Yes</td>
</tr>
<tr>
<td></td>
<td>• No/ or not reported on</td>
</tr>
<tr>
<td></td>
<td>• Addressed</td>
</tr>
<tr>
<td></td>
<td>• Not addressed</td>
</tr>
</tbody>
</table>
## Appendix 2c - Full details of studies included in literature review

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Participants</th>
<th>Therapy</th>
<th>Process measures</th>
<th>Outcome measures</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Descriptive studies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bierenbaum et al. (1976)</td>
<td>Quasi-experiment with 3 conditions: 1. 2 x 30 mins therapy per week 2. 1 hr once per week 3. 2 hrs every other week</td>
<td>USA N = 42</td>
<td>Brief emotive psychotherapy</td>
<td>• Seconds of catharsis per hour of treatment</td>
<td>• MMPI&lt;sup&gt;a&lt;/sup&gt;  • Interview  • Behavioural target complaints</td>
<td>Patients in the 1-hour group produced the most catharsis. Amount of catharsis did not correlate with outcome.</td>
</tr>
<tr>
<td>Taurke et al. (1990)</td>
<td>Comparison of:  • High outcome  • Low to average outcome</td>
<td>USA N = 16</td>
<td>Brief psychodynamic psychotherapy</td>
<td>• Coded verbal &amp; non-verbal affect using VCS</td>
<td>• SAS  • TC</td>
<td>Found a relationship between an increase in the ratio of affect expressed to defences expressed and high outcome scores.</td>
</tr>
<tr>
<td>Bridges (2006)</td>
<td>Observational: Case series</td>
<td>USA N = 3</td>
<td>Short-term emotion focused therapy</td>
<td>• Physiological arousal  • DABS  • SPAFF  • EXP</td>
<td>• BDI-II  • SCL-90  • GSI  • OQ-45</td>
<td>Each participant displayed an individual pattern of emotional arousal, expression, experience &amp; processing. 2 out of</td>
</tr>
</tbody>
</table>

(continued on next page)
interpersonal injuries with attachment figures.

**Hypothesis testing - impact of specific techniques**

**Kiesler (1971)**
To explore patient experiencing and successful outcome in treatment of 'schizophrenics' & 'psychoneurotics'.

Comparison of cases: USA
- More successful
- Less successful

Client-Centred Psychotherapy
30 sessions

- EXP
- HKMS or MMPI & clinician interview

More successful participants scored higher in experiencing than less successful, change in experiencing unrelated to outcome however.

**Nichols (1974)**
To explore the impact of catharsis on outcome with patients from a university counselling service.

Randomised controlled trial with 2 conditions:
1. Emotive treatment group
2. Non-emotive treatment group

USA
\( N = 43 \)

Emotive psychotherapy
Mean of 9 sessions

- Seconds of discharge
- Type of discharge
- MMPI
- TOES
- Personal satisfaction
- Progress on personal goals

The emotive group experienced more catharsis and high catharsis participants changed more on behavioural goals.

**Coombs et al. (2002)**
To explore the expression of patient emotion and therapist stance and the relationship of these to outcome in the treatment of participants with depression.

Part of large randomised controlled trial for treatment of depression, 4 conditions:
1. Interpersonal Therapy (IPT)
2. Cognitive Behavioural Therapy (CBT)
3. Imipramine
4. Placebo pill and

USA
\( n = 35 \) for IPT cond.

Interpersonal therapy
Mean of 16 sessions

- Patient Painful Affect measure, a cluster of PQS items
- HRSD
- BDI
- GAS
- HSCL

The collaborative exploration of emotion was significantly related to positive outcome. Patient 'Inhibition' also higher in IPT and associated with good outcome.

(continued on next page)
<table>
<thead>
<tr>
<th>Study</th>
<th>Title</th>
<th>Objective</th>
<th>Design</th>
<th>Location</th>
<th>Clinical Management</th>
<th>Measures</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos et al. (2003)</td>
<td>To explore the importance of early and late emotional processing to change during treatment of depression.</td>
<td>Correlational study: Examined depth of emotional processing in relation to outcome at different points in the course of the therapy.</td>
<td>Canada</td>
<td>N = 34</td>
<td>Experiential therapy</td>
<td>EXP, WAI</td>
<td>Early experiencing related to improvements in symptomology. Late emotional processing was independently predictive of improvement.</td>
</tr>
<tr>
<td>Goldman et al. (2005)</td>
<td>To explore the depth of emotional experiencing and outcome in participants with a diagnosis of depression.</td>
<td>Correlational study: Examined outcome in relation to depth of experiencing of key themes in an early session and in three sessions from latter half of therapy.</td>
<td>USA</td>
<td>N = 35</td>
<td>Client-centred or Emotion-focused therapy</td>
<td>EXP</td>
<td>Increase in levels of experiencing across therapy was strongest predictor of change. Depth of experiencing on core themes in the last half of therapy was predictive of reduced distress and increased self-esteem.</td>
</tr>
<tr>
<td>Missirlian et al. (2005)</td>
<td>To explore the relationship between emotional arousal, perceptual processing and alliance in treatment of</td>
<td>Correlational study: Examined outcome in relation to emotional arousal and perceptual processing strategies at early, middle and late phases of therapy.</td>
<td>Canada</td>
<td>N = 32</td>
<td>Client-centred or Process experiential therapy</td>
<td>CEAS-III, LCPP, WAI</td>
<td>Emotional arousal predictor of reduction in symptoms and increased self-esteem but only with respect to arousal in middle phase of therapy.</td>
</tr>
</tbody>
</table>
### Hypothesis testing - examining patient characteristics

**Richert (1976)**
To investigate the relationship between expectations, experiencing and change in patients at a counselling centre.

<table>
<thead>
<tr>
<th>Country</th>
<th>Study Type</th>
<th>Measures</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>Correlational study</td>
<td>EXP, BDI, IIP, RSE, SCL-90-R, DAS</td>
<td>Good outcome in both groups had higher levels of emotional processing. Processing increased from beginning to midpoint of therapy.</td>
</tr>
<tr>
<td>USA</td>
<td>Brief psychotherapy</td>
<td>EXP, Satisfaction score, RCRT, Degree of change expected, SCAT</td>
<td>A negative relationship was found between levels of experiencing and perceived improvement.</td>
</tr>
</tbody>
</table>

### Hypothesis testing - examining the timing and context of interventions

**McCullough et al. (1991)**
To examine the relationship of patient-therapist interaction to outcome in participants with personality

<table>
<thead>
<tr>
<th>Country</th>
<th>Study Type</th>
<th>Measures</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>Correlational study</td>
<td>EXP, SAS, TC</td>
<td>Participants-therapist interpretations followed by affect related to improvement. Interventions followed by defensive behaviour correlated negatively</td>
</tr>
</tbody>
</table>
### Examining links between processes and theories of change with outcome.

<table>
<thead>
<tr>
<th>Study</th>
<th>Comparison of:</th>
<th>Country</th>
<th>N</th>
<th>Method</th>
<th>Tests</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenberg and Webster (1982)</td>
<td>Resolvers and Non-resolvers</td>
<td>Canada</td>
<td>31</td>
<td>Gestalt two-chair dialogue</td>
<td>EXP, CVQ</td>
<td>Deepening of experiencing is one of the elements characterising a conflict resolution performance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mean of 4 sessions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenberg and Foerster (1996)</td>
<td>Resolvers and Non-resolvers</td>
<td>Canada</td>
<td>22</td>
<td>Empty chair/Process-experiential</td>
<td>EXP, EAS, CVQ</td>
<td>Four performance components, including intense expression of feeling, distinguished between participants who successfully resolved and those who did not.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No. of sessions not stated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watson (1996)</td>
<td>Resolution sessions vs. Non-resolution sessions</td>
<td>Canada</td>
<td>12</td>
<td>Experiential therapy</td>
<td>EXP, RARS, DRS, NPCS</td>
<td>Found that vivid description promoted emotional arousal. Suggests that this arousal facilitates recollection. Resolution sessions followed this pattern.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12-16 sessions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
problematic reactions in patients from a university counselling service.

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Location</th>
<th>Participants</th>
<th>Measures</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>study</td>
<td></td>
<td></td>
<td>16-20 sessions</td>
<td></td>
</tr>
<tr>
<td>To explore the process of</td>
<td>▪ Resolvers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>resolution of 'unfinished</td>
<td>▪ Non-resolvers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>business' in participants with interpersonal problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenberg et al. (2007)</td>
<td>Comparison of:</td>
<td>Canada</td>
<td>N = 8</td>
<td>Client-centred or emotion-focused therapy, CEAS-III, PS</td>
<td>No significant differences in degree of expressed emotion between groups. Better outcome clients expressed more productive emotions however.</td>
</tr>
<tr>
<td>To explore the relationship</td>
<td>▪ Better outcome &amp;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>among emotional productivity,</td>
<td>poorer outcome cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>emotional arousal and outcome in participants with depression.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Greenberg et al. (2008) Examined the emotional process of forgiveness in a study that compared the effectiveness of EFT with psychoeducation in people with interpersonal emotional injuries.

Randomised controlled trial, 2 conditions: 1. Emotion-Focused Therapy 2. Psychoeducation Canada N = 46 Empty chair/ emotion-focused therapy or psychoeducation group 12 sessions

- EASRM
- EFI
- UFBRS
- TC
- GSI of SCL-90-R
- BDI
- WAI

In session emotional arousal did not relate to outcome in either group.

* All abbreviations are defined on the following page.
Abbreviations used for studies referred to in Appendix 2c

Abbreviations used for outcome measures

BDI (II) - Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961)
BR - Behavioural Report (Greenberg & Webster, 1982)
CRS - Conflict Resolution Scale (Greenberg & Webster, 1982)
CTSC-(R) - Client Task-Specific Change Measure - Revised (Watson, Greenberg, Rice, & Gordon, 1996)
DAS - Dysfunctional Attitudes Scale (Weissman & Beck, 1978)
EFI - Enright Forgiveness Inventory (Enright, Rique, & Coyle, 2000)
EPMS - Epstein’s Prevailing Mood Scale (Epstein, 1979)
GAS - Global Attainment Scale (Kiresuk & Sherman, 1968)
GSEQ - General Session Evaluation Questionnaire, part of the Therapy Session Evaluation Measure (Orlinsky & Howard, 1975)
GSI - General Stress Index (No reference provided in study; Bridges, 2006)
GSI of SCL-90 -R – Global Severity Index of the Symptom Checklist -90 - Revised (Derogatis, Rickels, & Roh, 1976)
HAT - Helpful Aspects of Therapy (Llewelyn, 1988)
HKMS - Hunt-Kogan Movement Scale (Hunt & Kogan, 1950)
HRSD - Hamilton Rating Scale for Depression (Hamilton, 1967)
HSCL-90 - Hopkins Symptom Checklist (Lipman, Covi, & Shapiro, 1979)
IIP - Inventory of Interpersonal Problems (Horowitz, Rosenberg, Baer, Ureno, & Villaseñor, 1988)
IPR – Interpersonal Process Recall (Elliott, 1986)
MMPI - Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1940)
NEED - Needs Scale (Foerster, 1990)
OQ-45 - Outcome Questionnaire – 45 (No reference provided in study; Bridges, 2006)
PCSQ - Post Resolution Session Questionnaire (Greenberg & Webster, 1982)
PPQ - Phillips Personalized Questionnaire (Phillips, 1970)
RCRT- Role Construct Repertory Test (Kelly, 1955)
RSE - Rosenberg Self-Esteem Scale (Rosenberg, 1965)

2 All references are provided in the literature review reference section
Abbreviations used for outcome measures (cont.)

SAS - Social Adjustment Scale (Weissman & Both, 1976)
SASB - Structural Analysis of Social Behaviour (Benjamin, 1979)
SCAT - Sentence Completion Attitudes Test (Reznikoff, Brady, & Zeller, 1959)
SCID – Structured Clinical Interview for DSM-IV (Spitzer, Williams, Gibbon, & First, 1995)
SCL-90-(R) - Symptom Checklist – 90 (revised) (Derogatis, Rickels, & Roch, 1976)
SCM - Session Change Measure (Watson & Greenberg, 1996)
STAI - State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970)
SVI - Scale of Vocational Indecision (Osipow, Carney, & Barak, 1976)
TC - Target Complaints (Battle, 1966)
UFBRS - Unfinished Business Resolution Scale (Singh, 1994)
WAI - Working Alliance Inventory (Horvath & Greenberg, 1989)

Abbreviations used for emotion/process measures

CEAS-III – Client Emotional Arousal Scale – III (Warwar & Greenberg, 1999)
CVQ - Client Vocal Quality Measure (Rice & Kerr, 1986)
DABS - Derogatis Affect Balance Scale (Derogatis, 1996)
DRS - Degrees of Resolution Scale (Rice, 1990)
EAS - Emotional Arousal Scale (Daldrup, Beutler, Engle, & Greenberg, 1988)
EASRM - Emotional Arousal Session Report Measure (Warwar & Greenberg, 2002)
ES - Expressive Stance (Rice, Watson, & Greenberg, 1993)
EXP - Experiencing Scale (Klein, Mathieu, Gendlin, & Kiesler, 1969)
LCPP - Levels of Client Perceptual Processing (Toukmanian, 1994)
NPCS - Narrative Process Coding System (Angus, Field, & Grant, 1992)
PQS - Psychotherapy process Q-Set (Jones, 2000)
PS – Productivity Scale (Greenberg, Auszra, & Herrmann, 2004)
RARS - Referential Activity Rating Scale (Bucci, 1985)
SPAFF - Specific Affects Coding System (Gottman, McCoy, Coan, & Collier, 1996)
TOES - Test of Emotional Styles (Allen, 1972)
VCS - Video coding system (McCullough et al., 1985)
## Appendix 2d - Quality appraisal profiles of studies included in literature review

<table>
<thead>
<tr>
<th>Study</th>
<th>Reliability</th>
<th>Validity</th>
<th>Change over time</th>
<th>Measures</th>
<th>Perspectives</th>
<th>Channel of input</th>
<th>Unit of measure</th>
<th>Order effects</th>
<th>Raters</th>
<th>Change over time</th>
<th>Measures</th>
<th>Perspectives</th>
<th>Channel of input</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Descriptive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bierenbaum et al. (1976)</td>
<td>Yes</td>
<td>NS</td>
<td>Yes</td>
<td>4</td>
<td>Audio</td>
<td>Each moment of every therapy session</td>
<td>NS</td>
<td>NS</td>
<td>No</td>
<td>3</td>
<td>2</td>
<td>M &amp; I</td>
<td>NS</td>
<td>No</td>
</tr>
<tr>
<td>Taurke et al. (1990)</td>
<td>NS</td>
<td>NS</td>
<td>X 4</td>
<td>4</td>
<td>Video</td>
<td>One session coded min by min from each quartile of therapy</td>
<td>NS</td>
<td>NS/Yes</td>
<td>No</td>
<td>2</td>
<td>1</td>
<td>M</td>
<td>NS</td>
<td>No</td>
</tr>
<tr>
<td>Bridges (2006)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>4</td>
<td>Heart rate, Video, Patient rating</td>
<td>All sessions video taped, not clear what length segments were that were rated</td>
<td>NS</td>
<td>NS</td>
<td>No</td>
<td>4</td>
<td>1</td>
<td>M</td>
<td>NS</td>
<td>No</td>
</tr>
<tr>
<td><strong>Hypothesis testing - specific techniques</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kiesler (1971)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>4</td>
<td>Audio</td>
<td>Random 4 mins from latter half of every session</td>
<td>Mixed units</td>
<td>UG</td>
<td>No</td>
<td>1</td>
<td>2</td>
<td>1 or 2</td>
<td>M or M &amp; I</td>
<td>NS</td>
</tr>
<tr>
<td>Nichols (1974)</td>
<td>Yes</td>
<td>NS</td>
<td>Yes</td>
<td>2</td>
<td>Audio</td>
<td>Each moment of every therapy session</td>
<td>NS</td>
<td>Yes</td>
<td>No</td>
<td>4</td>
<td>2</td>
<td>M &amp; I</td>
<td>NS</td>
<td>No</td>
</tr>
<tr>
<td>Coombs et al. (2002)</td>
<td>NS</td>
<td>NS</td>
<td>X 2</td>
<td>1</td>
<td>Transcript</td>
<td>Transcripts of 2 sessions for each participant, one early and one later in treatment</td>
<td>Mixed units</td>
<td>No/Yes</td>
<td>No</td>
<td>4</td>
<td>2</td>
<td>M</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Pos et al. (2003)</td>
<td>Yes</td>
<td>Yes</td>
<td>X 2</td>
<td>1</td>
<td>? Video</td>
<td>Coded ‘emotion episodes’ from second and second from last sessions</td>
<td>Mixed Units</td>
<td>No/Yes</td>
<td>Yes</td>
<td>6</td>
<td>1</td>
<td>M</td>
<td>Yes</td>
<td>2nd session</td>
</tr>
<tr>
<td>Goldman et al. (2005)</td>
<td>Yes</td>
<td>Yes</td>
<td>X 4</td>
<td>1</td>
<td>Transcript</td>
<td>20 mins from 2nd session &amp; each of the three chosen ‘on</td>
<td>Mixed Units</td>
<td>No/Yes</td>
<td>Yes</td>
<td>7</td>
<td>1</td>
<td>M</td>
<td>NS</td>
<td>2nd session</td>
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<tr>
<th>Study</th>
<th>Methodology</th>
<th>Data Collection</th>
<th>Data Analysis</th>
<th>Coding Scheme</th>
<th>Level</th>
<th>Timing</th>
<th>Outcome</th>
<th>Effects Size</th>
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</thead>
<tbody>
<tr>
<td>Missirlian et al. (2005)</td>
<td>Yes</td>
<td>NS X 3 1 1 Video</td>
<td>Coded 'emotion episodes' from early, middle and late sessions</td>
<td>NS</td>
<td>No/Yes</td>
<td>Yes 4 1 M Yes</td>
<td>2nd session Yes</td>
<td>11</td>
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<tr>
<td>Watson &amp; Bedard (2006)</td>
<td>Yes Yes Yes 1 1 Transcript</td>
<td>Middle 20 mins of three sessions were transcribed, one each from beginning, middle &amp; end phases. Segment length was 20 mins</td>
<td>NS</td>
<td>NS/Yes</td>
<td>No 6 1 M NS No No</td>
<td>5.5</td>
<td></td>
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<tr>
<td>Hypothesis testing - patient characteristics</td>
<td>Richert (1976)</td>
<td>Yes Yes X 8 1 1 Audio</td>
<td>Random 4 mins from latter half of the middle eight sessions</td>
<td>Mixed units</td>
<td>UG ? T</td>
<td>No 4 2 M &amp; R NS No No</td>
<td>8</td>
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<tr>
<td>Hypothesis testing - timing and context of interventions</td>
<td>McCullough et al. (1991)</td>
<td>NS NS X 4 1 1 Video</td>
<td>The 3 mins following an intervention for every min of session. One session from each quartile</td>
<td>NS</td>
<td>NS/Yes</td>
<td>No 2 1 M NS No No</td>
<td>4.5</td>
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<tr>
<td>Theories of change</td>
<td>Greenberg &amp; Webster (1982)</td>
<td>Yes Yes No 2 1 Audio</td>
<td>8 minutes from 'resolution' session to confirm experiential component</td>
<td>NR</td>
<td>NS No 11 1 M Yes No Yes</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenberg &amp; Foerster (1996)</td>
<td>Yes Yes No 3 1 Transcript</td>
<td>Two-minute segments of dialogue between 'self' and 'other' chair were rated</td>
<td>Mixed units</td>
<td>No/Yes</td>
<td>No 2 3 T,P,R M NS No No</td>
<td>8.5</td>
<td></td>
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</tr>
<tr>
<td>Watson (1996)</td>
<td>Yes Yes No 4 1 Transcript</td>
<td>Transcripts of sessions in which problematic reactions were explored</td>
<td>NS</td>
<td>NS/Yes</td>
<td>Yes 3 2 P M &amp; I NS No No</td>
<td>8.5</td>
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<tr>
<td>Watson &amp; Greenberg (1996)</td>
<td>Yes Yes Yes 4 1 Transcript</td>
<td>Randomly selected transcripts from last two thirds of therapy during which tasks were worked on</td>
<td>NS</td>
<td>NS Yes 6 1 M NS No No</td>
<td>8</td>
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(continued on next page)
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<tr>
<th>Study</th>
<th>Pilot Study</th>
<th>Tailored Study</th>
<th>Interpretability</th>
<th>Length</th>
<th>Method of Data Collection</th>
<th>Measure of Emotional Arousal</th>
<th>Overall Scoring</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>Greenberg &amp; Malcolm (2002)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>3</td>
<td>Transcript</td>
<td>Rater identified 2 min segments of therapy that best represented each component of model</td>
<td>NS</td>
<td>No/Yes</td>
</tr>
<tr>
<td>Greenberg et al. (2007)</td>
<td>NS</td>
<td>NS</td>
<td>Yes</td>
<td>2</td>
<td>Video</td>
<td>Rated 1 minute segments containing 1 of 15 emotion categories pertaining to core themes</td>
<td>NS</td>
<td>No/Yes</td>
</tr>
<tr>
<td>Greenberg et al. (2008)</td>
<td>NS</td>
<td>NS</td>
<td>Yes</td>
<td>1</td>
<td>Self-report</td>
<td>Self-report measure completed post session by participant to indicate the intensity of emotional arousal experienced during the session</td>
<td>NR</td>
<td>NR</td>
</tr>
</tbody>
</table>

*a Score indicates number of criteria included - see Appendix 2b

**Notes.** UG=Under-graduate, NS = Not stated, M = Measure, I = Interview, ? T = Training not described, R = Rater, NR = Not relevant, P = Participant.
Appendix 3 - Ethical Approval

Letter confirming NHS ethical approval
17 September 2009

Mrs Alison Salvadori
Trainee Clinical Psychologist
Clinical Psychology Unit, University of Sheffield
Department of Psychology
The University of Sheffield
Western Bank, Sheffield
S10 2TP

Dear Mrs Salvadori,

Study Title: An investigation into the relationship between affect experiencing and distress in Intensive Short-Term Dynamic Psychotherapy

REC reference number: 09/H0406/89
Protocol number: 4

Thank you for your letter of 24 August 2009, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rcfforum.nhs.uk
Where the only involvement of the NHS organisation is as a Participant Identification Centre, management permission for research is not required but the R&D office should be notified of the study. Guidance should be sought from the R&D office where necessary.

Sponsors are not required to notify the Committee of approvals from host organisations.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review feedback</td>
<td></td>
<td>22 December 2008</td>
</tr>
<tr>
<td>Review feedback</td>
<td></td>
<td>27 February 2009</td>
</tr>
<tr>
<td>Confirmation of scientific approval and indemnity</td>
<td></td>
<td>29 April 2009</td>
</tr>
<tr>
<td>Covering Letter</td>
<td></td>
<td>13 July 2009</td>
</tr>
<tr>
<td>Investigator CV</td>
<td>Supervisor</td>
<td></td>
</tr>
<tr>
<td>REC application</td>
<td>23471/49582/1/874</td>
<td>23 July 2009</td>
</tr>
<tr>
<td>Questionnaire: Inventory of Interpersonal problems - 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questionnaire: WAI - Client form</td>
<td></td>
<td></td>
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<tr>
<td>Questionnaire: WAI - Therapist form</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questionnaire: CORE-OM form</td>
<td></td>
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<tr>
<td>Questionnaire: BDI form</td>
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</tr>
<tr>
<td>Investigator CV</td>
<td>Chief Investigator</td>
<td>13 July 2009</td>
</tr>
<tr>
<td>Costing form</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Researcher and coder confidentiality agreement form</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questionnaire: Affect Exposure Scale from ATOS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questionnaire: TAS - 20 form</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protocol</td>
<td>4</td>
<td>13 July 2009</td>
</tr>
<tr>
<td>Participant Information Sheet</td>
<td>2</td>
<td>24 August 2009</td>
</tr>
<tr>
<td>Participant Consent Form</td>
<td>2</td>
<td>24 August 2009</td>
</tr>
<tr>
<td>Response to Request for Further Information</td>
<td></td>
<td>24 August 2009</td>
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</tbody>
</table>

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.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document “After ethical review – guidance for researchers” gives detailed
guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk

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

Yours sincerely

[Signature]

Dr Carl Edwards/Miss Jeannie McKie
Chair/Committee Coordinator

Email: jeannie.mckie@nottsct.nhs.uk

Enclosures: "After ethical review – guidance for researchers" SL- AR2
Copy to: Ms Christie Harrison
R&D office for NHS care organisation at lead site – Derbyshire Mental Health

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Appendix 4 - Measures (all removed)

4a  Inventory of Interpersonal Problems - Short Circumplex version
4b  Toronto Alexithymia Scale-20
4c  Beck Depression Inventory II
4d  Clinical Outcomes in Routine Evaluation - Outcome Measure
4e  Working Alliance Inventory therapist version
4f  Working Alliance Inventory client version
4g  Affect Experiencing Scale from the ATOS
4h  Degree of Inhibition Scale from the ATOS
Appendix 5 - Participant recruitment

5a Information sheet

5b Consent form
Appendix 5a - Information sheet

The effects of expressing emotion in Intensive Short-Term Dynamic Psychotherapy

You are being invited to take part in a research study. Before you decide if you would like to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Ask us if there is anything that is not clear or if you would like more information.

What is the purpose of the study?
Intensive Short-Term Dynamic Psychotherapy (ISTDP) is a new type of therapy that aims to improve well-being by helping people face their feelings. This research will look into the ways in which this therapy works. We hope the study will provide information to help improve the therapy offered to people with mental health problems.

Why have I been invited?
You have been invited to take part in this study as you are seeing a psychologist who has received specialist training in this type of therapy.

Do I have to take part?
No, it is up to you to decide. We will describe the study and go through this information sheet, which we will then give to you. We will then ask you to sign a consent form to show that you have agreed to take part.

What will happen to me if I take part?
You will be attending the clinic here once a week for your therapy sessions. Your psychologist is specially trained in ISTDP. In this type of therapy it is common practice to videotape the therapy session. Your psychologist will discuss the use of videotapes with you and ask for your permission in writing before recording the sessions.
We would like to ask your permission to use small segments of these videotapes for our research. Approximately 10 minutes of each therapy tape will be reviewed by two of our researchers who are also psychologists. We will also ask you to fill in some questionnaires before you start your series of therapy sessions and then before and after each meeting with your psychologist. We will ask you to fill in these questionnaires whether or not you agree to take part in this research as we routinely use them to keep track of your progress. If you agree to take part in this research our lead research psychologist would see the results of the questionnaires.

Although this is not part of your routine clinical care, the researchers are health care professionals and will treat the data with full confidentiality. Taking part in the study will not affect your clinical care; we are only seeking permission to access data which is routinely collected.

Can I withdraw from the study at any time?
Yes. Although consent is being taken before treatment begins, you can withdraw at any point without your medical care being affected. If you do choose to withdraw, we will ask to use the data already collected but you are under no obligation to agree to this and can request that the data is not retained by us. However, information will still be held in your medical records where this is clinically relevant.

What are the possible disadvantages and risks of taking part?
We do not anticipate that there will be any disadvantages or risks in taking part in this project as you are not being asked to do anything additional to the therapy. However, as explained above, by taking part in this study you are agreeing to allow two other psychologists to see small sections of your therapy tapes and your questionnaires.

Are there any side effects of this type of therapy?
In common with other types of psychotherapy, sometimes people notice that early on in their treatment they feel worse before they start to feel better. Your therapist will be aware of this and you should talk to him if you are concerned about this or any other aspect of your therapy.

What are the possible benefits of taking part?
We cannot promise the study will help you but we hope that the information we get from this study will help improve the treatment of people with mental health problems.

What if there is a problem?
If you have a concern about any aspect of this study, you should ask to speak to the researcher who will do her best to answer your questions. Alison Salvadori is the researcher and project co-ordinator. A message can be left for Alison by telephoning Christie Harrison, Research Support Officer, on 0114 222 6650. Christie can only relay messages; she can not answer any enquiries herself. If you have a concern about this study and you feel that you want to take this further, you can contact my Alison’s supervisor, Professor Gillian Hardy at the University of Sheffield on 0114 222 6571.
If you remain unhappy and wish to complain formally, you can do this through the NHS Complaints Procedure (details can be obtained from the hospital) or the University of Sheffield's complaints procedure (details can be obtained from Dr David Fletcher on 0114 222 1100).

In the event that something does go wrong and you are harmed during the research and this is due to someone's negligence then you may have grounds for a legal action for compensation against [Redacted] NHS Trust. You may have to pay your legal costs. The normal National Health Service complaints mechanisms will still be available (if appropriate).

**Will my taking part in the study be kept confidential?**
Yes. We understand that by letting our research psychologists see segments of your therapy videotapes that you are trusting us with some sensitive material. One copy of the recording of your therapy session will be made for the purpose of this study, this DVD will be password protected and encrypted and kept locked in a secure cabinet when it is not being used.

Any information about you which leaves the hospital will have your name and address removed so that you cannot be recognised. We will follow ethical and legal practice and all information about you will be handled in confidence. All information will be stored securely within the Clinical Psychology Unit at the University of Sheffield for five years (the length of time we need to keep research information for) then it will be destroyed.

Some parts of the data collected for the study will be looked at by authorised persons from the University of Sheffield and the NHS to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

**What will happen if I don’t want to carry on with the study?**
You can contact the researcher and she will make sure that the research psychologists no longer see excerpts from the videotapes of your therapy sessions. If you withdraw from the study we will ask if we can still use the data collected up to your withdrawal.

**What will happen to the results of the research study?**
The results of the study will be written up for publication in academic journals and will form part of a Counselling Psychology thesis. You will not be identified in any report or publication and any quotes will be anonymous. If you would like to receive a copy of the results please let me know and I will send you a copy once the study is complete.

**Who has reviewed the study?**
All research in the NHS is looked at by an independent group of people called a Research Ethics Committee to protect your safety, rights, well being and dignity. This study has been reviewed and given favourable opinion by Leicestershire, Northamptonshire and Rutland Research Ethics Committee 1.
Further information and contact details
If you decide to participate in this study, you will be given a copy of this information sheet and a signed consent form to keep. If you would like to know more about the study please contact Alison Salvadori. A message can be left for Alison via Christie Harrison, Research Support Officer, by telephoning 0114 222 6650. Once again it is emphasised that Christie will only relay messages to the researcher. She will not answer any queries herself.

Thank you for taking the time to read this information sheet and considering taking part in this study.
Participant consent form

Title of Project: An investigation into the relationship between affect experiencing and distress in Intensive Short-Term Dynamic Psychotherapy

Name of Researcher: Alison Salvadori

Name of Supervisor: Professor Gillian Hardy

Participant Identification Number for this project:  

1. I confirm that I have read and understand the information sheet dated 24/08/09 version 2 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.

3. I give permission for members of the research team to have access to excerpts from videotape recordings of my therapy sessions.

4. I give permission for data collected during my assessment interview to be included in the study.

5. I am aware that identifiable data may be viewed by authorised persons for monitoring and auditing purposes (by the Research Support Officer in the Clinical Psychology Unit and by a representative of the local research Governance office).

6. I agree to take part in the above research project.

________________________  ________________  ____________________  
Name of Participant Date Signature

________________________  ________________
Name of person taking consent Date Signature