Emotional Processing During Experiential Treatment of Depression

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This study explored the importance of early and late emotional processing to change in depressive and general symptomology, self-esteem, and interpersonal problems for 34 clients who received 16–20 sessions of experiential treatment for depression. The independent contribution to outcome of the early working alliance was also explored. Early and late emotional processing predicted reductions in reported symptoms and gains in self-esteem. More important, emotional-processing skill significantly improved during treatment. Hierarchical regression models demonstrated that late emotional processing both mediated the relationship between clients’ early emotional processing capacity and outcome and was the sole emotional-processing variable that independently predicted improvement. After controlling for emotional processing, the working alliance added an independent contribution to explaining improvement in reported symptomology only.

How psychotherapy works remains a crucial question in need of empirical investigation. Although theoretical concepts that frame different approaches to treatment still vary, some agreement is occurring across approaches on the processes that are relevant to success in psychotherapy. The working alliance (Horvath, 2000), depth of experiencing (Hendricks, 2002; Orlinsky & Howard, 1978), and differences in individuals’ capacity for engaging in treatment (Lambert, 1992; Lambert & Hill, 1994) have all been posited as important elements contributing to outcome.

Emotional processing is also receiving renewed interest as an important factor in psychotherapy (Foa & Kozak, 1986; Greenberg & Safran, 1987; Rachman, 1984). It is now generally held that affect and cognition are highly integrated in automatically functioning cognitive-affective structures (Beck, 1996; Greenberg & Safran 1987) and that these structures are important targets of treatment. Emotional processing, including experiencing and working with the emotional significance of things in therapy, has been posited as important to change, not only in experiential treatment but also in psychoanalytic and cognitive–behavioral treatments (Borkovec & Sides, 1979; Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996; Greenberg, Rice, & Elliot, 1993; Mergenthaler, 1996; Stein, 1991). Emotion researchers now also agree that emotion is a rapid-action meaning system that informs individuals of the significance of events to their well-being (Frijda, 1986), in part, because emotions are generated from tacit appraisals of both situation and self in relation to important needs (Le Doux, 1996; Scherer, 1984, 1993). Being disconnected from emotional experience, therefore, means being cut off from adaptive information (Damasio, 1994).

Emotional processing was first defined by Rachman (1980) as the decline of problematic and subjectively experienced fear states, which occurs through repeated exposure to those fear states. Foa and Kozak (1986) broadened the definition to define emotional processing as either increased or decreased emotional responding resulting from exposure to both the fear state and information inconsistent with the activated cognitive–affective fear structure.

Experiential approaches traditionally have defined emotional processing in a broader sense, viewing emotion not solely as problematic but also as a source of adaptive information (Greenberg & Safran, 1984). In this tradition, emotional processing is viewed as a continuum of stages. First, clients must approach emotion by attending to emotional experience. Second, clients must allow and tolerate being in live contact with their emotions. These two stages are consistent with Rachman (1980) and Foa and Kozak (1986). From the experiential perspective, however, approach, activation, and tolerance of emotional experience are necessary but not sufficient. Optimum emotional processing involves the integration of cognition and affect (Greenberg, 2002; Greenberg & Pascual-Leone, 1995; Greenberg & Safran, 1987). Once contact with emotional experience is achieved, clients must also cognitively orient to that experience as information and explore, reflect on, and make sense of it. This includes exploring beliefs relating to experienced emotion, giving voice to emotional experience, and identifying needs that can motivate change in personal meanings and beliefs. If such exploration and reflection occur, new
emotional reactions and new meanings potentially emerge that subsequently may be integrated into and change existing cognitive–affective meaning structures (Greenberg & Safran, 1987).

From the experiential–humanistic perspective, depression results, in part, from incomplete processing of emotional experience (Greenberg, Elliot, & Foerster, 1990; Greenberg & Paivio, 1997), and experiential treatment providers view deeper emotional processing as the important therapeutic task, goal, and change process (Greenberg & Pascual-Leone, 1995; Greenberg, Watson, & Lietaer, 1998; Watson & Greenberg, 1996). Two main avenues of intervention are used. First, providing both an empathic, validating relationship (Rogers, 1957, 1975) and a collaborative alliance (Bordin, 1979) creates the safe environment in which clients can experience their emotions. Second, engaging in evocative, explorative, and meaning-making reflections, as well as emotionally stimulating tasks, gives clients deeper and immediate contact with emotions and helps clients make sense of them (Greenberg et al., 1993; Greenberg et al., 1998; Rice, 1984).

Experiential theory predicts that to improve in optimal emotional processing. Emotional processing here refers to the manner of processing emotional events potentially available to consciousness. This can be viewed as a refinement of the traditional concept of experiencing. Experiencing has been formulated as the manner of processing experience, where experience is defined as anything potentially available to consciousness, including but not limited to emotional experience (Klein, Mathieu-Coughlan, & Kiesler, 1986). Experiencing has consistently been demonstrated to relate to outcome (Hendriks, 2002). An important consideration in any demonstration of the importance of clients' process to outcome, however, is that clients may enter treatment with initial differences in their experiential or emotional processing capacity. Some evidence exists, for example, that clients who are internally focused or are more willing to deal with their feelings early in therapy have better outcomes (Hendriks, 2002; Orlinsky & Howard, 1978). This is significant because good outcome in experiential therapy may result from clients' individual experiencing capacities, not from any processing skill activated or acquired within a therapeutic process (Garfield, 1994; Lambert & Bergin, 1992). Therefore, any test of the relationship between client process and outcome must show improvement in client process while taking clients' initial baseline process differences into account. To date, no investigation has definitively demonstrated change in experiential processing while controlling for individuals' baseline experiential capacities (Klein et al., 1986; Luborsky, Auerbach, Chandler, Cohen, & Bachrach, 1971; Orlinsky & Howard, 1978).

Failures to demonstrate patterns of change in experiential processing across therapy may have resulted from the use of random sampling of therapy segments. This assumes that client process is equally likely to occur at any point in therapy (Greenberg, 1986; Rice & Greenberg, 1984). Individuals, however, manifest very different profiles within and across sessions depending on what is occurring in the moment (Greenberg & Safran, 1987). With random sampling, differences in client process, as well as differences in the clinical relevance of moments, co-occur and thereby confound results. The events paradigm has suggested that therapeutic process can be more suitable and powerfully explored by focusing on clinically important events (Greenberg, 1986; Elliot, 1985). By definition, emotion occurs in situations most important to an individual's needs and concerns (Frijda, 1986). Anchoring the exploration of clients' experiential processing within the context of emotion events guarantees its measurement within events of equal clinical relevance. It also offers a clear measure of emotional processing in particular.

Examining experiencing (EXP; Klein, Mathieu, Gendlin, & Kiesler, 1969) during emotion episodes (EEs; Greenberg & Korman, 1993; Korman, 1991) provides this operational measure of emotional processing. An EE is a segment of psychotherapy in which a client speaks about having experienced emotion in response to a situation, real or imagined. The Experiencing Scale (EXP Scale; Klein et al., 1969) measures the degree to which clients orient to, symbolize, and use internal experience as information in the solving of their problems. The stages of the EXP Scale applied to EEs provide a sound measure that reflects the emotional-processing continuum.

The primary purpose of this study was to test the prediction that deeper emotional processing, measured as EXP during EEs (EE-EXP), occurs as the result of experiential treatment and that levels of emotional processing achieved toward the end of therapy better predict outcome than does any early capacity for emotional processing clients may have when they enter treatment.

A secondary goal was to maximize focus on clinically important content by using a “second-order” contextualization of EEs. Clearly, not all emotion-eliciting events are necessarily of equal therapeutic importance. Clients may be willing to experience the emotional significance of material distant to their core issues yet remain emotionally distant from more clinically important, perhaps painful, concerns. Depth of emotional processing, therefore, may vary in importance depending on particular client narrative content or themes. Themes can be defined as more or less stable patterns of situational feeling, wishing, construing, or acting (Strupp & Binder, 1984) that continually resurface and contribute to clients' problems and suffering (Goldman, 1997; Hatcher, Huebner, & Zakin, 1986). Core themes become the focus of therapy as it unfolds. Identifying clients' “on-theme” EEs provided an opportunity to focus specifically on the importance to outcome of emotional processing relating to clients' core issues. At the same time, an exploration of “off-theme” emotional processing was also made possible.

A final goal of this investigation was to explore the relative independent contributions to outcome of the early working alliance and emotional-processing variables. The early working alliance has been shown to robustly predict psychotherapy success (Horvath, 2000; Horvath & Greenberg, 1989). However, measures of the working alliance and emotional processing potentially overlap. For example, measures of the alliance include agreement on therapy tasks and goals, and emotional processing is a task and goal of experiential treatment. Also, as mentioned previously, a good working alliance is thought to provide the safe environment in which optimal emotional processing occurs. In a short treatment, being able to establish a good working alliance early in therapy may be an important preindicator of those who later in therapy better engage in the emotional-processing task. There is already evidence that a good working alliance may be necessary for clients' emotional arousal and experience in therapy to be productive (Iwakabe, Rogan, & Stalikas, 2000). The alliance, however, is more than agreement on tasks and goals. It also measures the strength of the therapeutic bond. Conversely, emotional processing is thought to contribute important unique explanations to outcome
over and above any explained by the alliance. This investigation, therefore, sought to test to what degree the early alliance and emotional processing are independent change processes.

To summarize, the hypotheses tested were that (a) early individual differences in emotional processing would relate to outcome; (b) emotional processing would deepen from the beginning to the end of therapy; (c) increased levels of emotional processing evident at the end of therapy would be the best predictor of outcome; (d) after controlling for the early working alliance, late emotional processing would be a better predictor of outcome than would the alliance; (e) after controlling for emotional-processing variables, the early working alliance would still be an independent predictor of outcome; and finally, (f) these results would be even stronger when considering emotional processing exclusively related to clients’ core themes or concerns.

Method

Participants

The sample consisted of 34 clients who participated in a clinical trial (Greenberg & Watson, 1998) on the differential effectiveness of two experiential modes of treatment for depression: client centered (CC) and process experiential (PE; Greenberg et al., 1993). All participants met criteria for major depressive disorder on the Structured Clinical Interview for the DSM-III-R (SCID; Spitzer, Williams, Gibbon, & First, 1989) and had Beck Depression Inventory (BDI; Beck, Steer, & Garbin, 1988) scores equal to or higher than 16. Sixty-five percent of clients rated themselves as moderately to severely depressed on the BDI. Fourteen clients (41%) had at least one SCID-diagnosed Axis II personality disorder (Greenberg & Watson, 1998).

Exclusion criteria were assessed using the SCID and a clinical interview. These included a Diagnostic and Statistical Manual of Mental Disorders (3rd ed., rev.; American Psychiatric Association, 1987) Global Assessment Functioning Scale score lower than 50, current drug or alcohol abuse, current eating disorder, antisocial or borderline personality disorder, bipolar or psychotic disorder, a past history of incest, recent suicide attempts, loss of a significant other in the past year, or involvement in an ongoing violent relationship. These criteria ensured that severely depressed, functionally impaired participants were excluded (Elkin et al., 1989). Demographics indicated 25 clients were women and 9 were men. There were no significant differences between groups in marital status, education, or age (see Greenberg & Watson, 1998).

Treatments

Two brief (16–20 session) experiential therapies were used: CC and PE. Both treatments aim to deepen clients’ emotional process to promote change.

CC. In CC therapy, the therapist provides three necessary conditions: unconditional positive regard (prizing the client), empathy, and congruence (genuineness). A manual based on Rogers (1957, 1975) was used as a guide to enhance the therapist’s ability to convey to the client empathic understanding of the client’s internal frame of reference and to check whether this understanding fit and was received by the client.

PE. As an integration of CC and gestalt therapies, this treatment provides a client-centered relationship while using marker-guided, process-directive interventions. A manual has been developed by Greenberg and colleagues (1993). In brief, the first three sessions provide client-centered conditions. Following this, and while still maintaining client-centered relationship conditions, specific markers of emotional problems are used to determine specific therapeutic interventions. Three specific interventions used are two-chair dialogue at a marker of a self-evaluative conflict; empty-chair dialogue for unfinished business with a significant other; and systematic evocative unfolding for problematic reactions. Adherence to both treatment modalities was achieved (Greenberg & Watson, 1998).

Therapists

Eight female and three male therapists participated in the study. For therapist demographics see Greenberg and Watson (1998). All therapists received manual-based training and were monitored through audio- and videotapes for adherence to treatment before and during therapy sessions. Each therapist served as his or her own control by seeing an equal number of clients in each of the two modalities.

Process Measures

EXP Scale. The EXP Scale measures the degree to which clients orient to and symbolize their internal experience and use this felt experience as information in the solving of their problems. Raters use grammatical, expressive, paralinguistic, and content distinctions to classify segments of therapy according to a 7-point ordinal-rating scale. Ratings 1–3 describe the progressive movement of orientation from external to internal referents. At Level 1, clients are objective and intellectual, giving no evidence of the personal significance of events they describe. At Level 2, clients give nonverbal or behavioral evidence of involvement in the material they discuss but fail to explicitly refer to their feelings, reactions, or internal states. At Level 3, external events are still the primary focus of clients’ discourse, but personal reactions and feelings begin to appear. Level 4 denotes a marked shift inward. Clients’ internal experience receives the major focus. Personal feelings and associations to events are explored. At Level 4, clients are in direct contact (Perls, Hefferline, & Goodman, 1951) with their fluid experience and speak “from” it as opposed to “about” it. Ratings 5–7 denote the progressive use of the experienced inner perspectives in affective problem solving. At Level 5, clients begin to pose and explore questions and theories about the meaning of their felt internal reactions and experiences. At Level 6, marked shifts in meanings, which then may alter experiences, are expressed; whereas at Level 7, shifts and understandings worked through in one particular area of personal experience are broadened, so that a wider range of personal experiences find clarity and meaning. Interrater reliability coefficients have been reported to range from .76 to .91. Segment length does not significantly affect EXP ratings, and rate–rate correlation coefficients of .80 have been reported (Klein et al., 1986).

An important assumption underlying this measure is that how individuals talk about or symbolize experience in language both has an impact on the experiences they have and is a valid index of the quality of their experiencing (Kiesler, 1973; Maturana & Varela, 1980; Neimeyer & Ma-honey, 1995).

Working Alliance Inventory (WAI). The WAI (Horvath & Greenberg, 1989) is a 36-item inventory rated on 7-point Likert scale. Clients completed the long form of the WAI after Session 4. The WAI is made up of three alliance subscales that assess the bond, and agreement on both therapy tasks and goals (Tracey & Kokotovic, 1989). Internal consistency for the whole scale is high (.87 to .93), as it is for the subscales (.89–.92) (Horvath & Greenberg, 1989). The alpha reliability coefficients for the client-completed WAI at Session 4 were .89, .92, .87, and .95 for goal, task, bond, and total alliance, respectively.

Outcome Measures

The following outcome measures were completed by clients after every session:

BDI. This 21-item inventory is widely used to assess depression (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). It has high internal consistency and correlates highly with other self-report measures of depression and with clinicians’ ratings of depression (r = .60 to .90; Beck et al., 1988).

Symptom Checklist—90—Revised (SCL-90-R). The SCL-90-R (Derogatis, 1983) is a widely used instrument that measures general symp-
tom distress, with high internal consistency (.77 to .90) and test-retest reliability (.80 and .90) over a 1-week interval (Derogatis, Rickels, & Roch, 1976). The Global Symptom Index was used as the outcome measure.

Rosenberg Self-Esteem Inventory (RSE). The RSE (Rosenberg, 1965, 1979) is a 10-item inventory and one of the most widely used measures of self-esteem. It has shown good internal consistency (α = .87).

Inventory of Interpersonal Problems (IIP). The IIP measures distress arising from interpersonal sources. The 127-item self-report version has demonstrated good test-retest reliability (.89 to .98) and internal consistency (.89 to .94; Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988).

Session change measure. This two-item measure asked clients to identify whether something changed for them as a result of the session and whether they would take a different course of action as a result. Each item is also rated on a 7-point Likert scale.

Helpful Aspects of Therapy Form. This is a frequently used qualitative measure of client perceptions of significant therapy events (Elliot, Slatick, & Urman, 2001; Llewelyn, 1988).

Procedure

Treatment procedure. Participants were randomly assigned to one of the two treatment modalities, CC or PE. There were no significant pre-treatment differences in any depression measure between groups (Greenberg & Watson, 1998). Treatment consisted of 14–20 1-hr weekly sessions (M = 17.6 sessions). All sessions were both audio- and videotaped. Clients completed pretreatment measures at least 1 week before the first session.

Sampling procedure. EEs were the primary units of analysis in which EXP was investigated. An EE is a segment of psychotherapy in which a client speaks about having experienced emotion in response to a situation, real or imagined. The EE segment is complete when the narrative theme changes or on a new emotional response being expressed. A complete protocol for an EE contains five components: the situation (e.g., loss of loved one), an emotional response (e.g., sadness), a tendency toward behavior or action associated with emotion (e.g., crying), an appraisal of self or situation (e.g., “I’m alone,” “she’s gone forever”), and a related concern or need (e.g., attachment). For an EE to be identified, only the emotional response or action tendency and a reported situation are required. An example of a brief client EE is found in the Appendix. For further information and exemplars of EEs, see Greenberg and Korman (1993) as well as Korman (1991, 1998). EEs typically ranged from one to two and a half pages of transcript in length. For all clients, EEs from the second (early) and from the second-to-last session (late) were sampled and rated on EXP. It was assumed that the second session would best reflect individuals’ initial baseline differences in emotional processing because it would be early in treatment, and they were not yet likely to be affected by therapeutic work. The second-to-last session was chosen to represent late emotional processing because it was assumed it best reflected the cultivating effect of therapeutic treatment on clients’ emotional processing. In a brief therapy of 16–20 sessions, it was preferred over the last session, in which deep therapeutic work is frequently not engaged in and issues relating to the end of therapy are often discussed.

Identification of core themes followed Goldman (1997). Therapists were asked at the end of treatment to identify the major themes that represented clients’ core issues worked on in therapy. Goldman further substantiated and elaborated the themes with information derived from client session reports (Session Change measure and the Helpful Aspects of Therapy measure). Client statements from these reports were specifically incorporated in the theme descriptors to help capture the essence of client experiences. The resulting themes were descriptive in nature. Although they did not focus on underlying motivations or causative dynamics, Goldman found that themes fit into two main categories: client’s view of self or client’s view of self in relation to other. Core themes were used to identify the subset of clients’ on-theme EEs.

Rating Procedure for Depth of EXP Scale

Three independent raters, all graduate students, rated the EE segments on EXP. In addition to having completed the standard 40-hr training for the EXP Scale, two of the raters had a variety of experiences applying the EXP Scale. The third rater was trained to reliability against the ratings of the two more experienced raters. All rating was done blind to outcome.

Raters received packages of randomly mixed early and late EEs from all clients. Each rater rated two thirds of the entire data pool of EEs. Reliability for EXP rating was therefore obtained for virtually the entire pool of EEs (97%). After ratings for reliability were recorded, the raters involved discussed any disagreements in EE-EXP ratings. This resulted in a final consensual rating that was used in analysis.

Typically, raters provide one modal (the most consistently expressed level in the segment) and one peak (the deepest momentary level evident in the segment) EXP rating for any segment. In this investigation, an assumption was made that the modal EXP rating would more validly represent clients’ sustained level of emotional processing because it reflected the overall most consistently present EXP level in the episode (Klein et al., 1986). All analyses, therefore, used modal EE-EXP ratings. For each client, the modal EXP ratings for their individual EEs were averaged, resulting in an average early and average late emotional processing score.

Results

Reliability

Reliability of emotion episode selection. A sample of 70 early and late sessions from 18 participants was used to establish reliability of EE sampling. Two raters independently selected the EEs from the 70 sessions. EEs from the two raters were then compared by protocol for the identified situation and the identified emotion or action tendency. There was a 98.88% agreement rate between the two raters’ EE selection for the same sessions.

Interrater reliability for selection of on-theme EEs. To establish whether on- or off-theme EEs could be reliably selected, a clinician experienced with all cases selected a random sample of n = 44 EEs, half of which were on-theme and half of which were off-theme. Each client’s EE was accompanied by that client’s list of core themes to which the EE might be related. The sample was then given to an independent rater who coded whether the EE was on- or off-theme. The interrater agreement between the expert clinician and independent rater was high, Cohen’s κ = 0.87, p < .01 (Fleiss, 1981).

Interrater reliability of EXP ratings. Very good reliability was achieved on modal EE-EXP ratings calculated as Cohen’s weighted kappa. The mean weighted kappa for modal EE-EXP rating was .76, p < .01. Fleiss (1981) suggests that levels greater than .75 can be considered excellent agreement beyond chance. These levels are also consistent with reliabilities of ratings of psychotherapy cases reported by Klein et al. (1986).

EE Frequency

Clients on average had 12.53 EEs per session (SD = 4.04). The mean frequencies of their early and late EEs were 13.12 (SD = 4.70) and 11.94 (SD = 4.84), respectively. Clients, therefore, had slightly fewer EEs at the end of therapy than at the beginning, but not significantly so (p = .19). Frequency of early and late EEs was correlated (Pearson’s r = .43, p = .01). Eighty-three percent of EEs were on theme.
An exploration was performed to rule out the possibility that frequency of EEs was a factor in either client process or outcome. No relationships between frequency of EEs and outcome measures or with the WAI were found, with two exceptions. Clients who had more late EEs overall and who were more frequently on theme during their late EEs reported greater gains in self-esteem (Pearson’s r = .35, p < .05, and Pearson’s r = .36, p < .05, respectively).

No significant correlations were found between early EE-EXP and EE frequency. However, two significant relationships between frequency of EEs and late EE-EXP were found. Clients who were more frequently off theme during their late EEs had both lower late EE-EXP and lower late on-theme EE-EXP (Pearson’s r = -.49, p < .01, and Pearson’s r = -.35, p < .05, respectively). No other relationships between frequencies and EXP were found.

The significance of the previously reported relationships should be interpreted with caution. Over 100 correlations were tested in this exploratory analysis, with no correction for significance level. As five significant correlations could be expected by chance alone, and fewer than five were found, EE frequency was not further considered in analyses.

### Change in Emotional Processing From Early to Late in Therapy

To control for the possible confound that early EE-EXP was a function of initial levels of pathology, we computed zero-order correlations between EXP rating for clients’ early EEs and clients’ pretreatment scores on outcome measures. None of the relationships were significant, p > .05. Therefore, capacity for early EE-EXP was not a function of clients’ depression, general symptomatology, self-esteem, or interpersonal problems.

Means and standard deviations for early and late emotional processing are reported in Table 1. There were significant positive relationships between early and late EE-EXP, Pearson’s r = .40, p < .05. Dependent measures t tests indicated significant differences between early and late EE-EXP, r(33) = 3.180, p = .003, and between early and late on-theme EE-EXP, r = 3.097, p = .004. Cohen’s effect size, calculated using the pooled standard deviation, was .62 and .59, respectively, indicating medium-large and medium sized effects (Cohen, 1988). Therefore, EE-EXP and on-theme EE-EXP were not stable but increased throughout the process of therapy. As only 56% of the sample had both early and late off-theme EEs, there was insufficient power (.09) to test for significant deepening of off-theme EE-EXP, r(18) = 0.620, p = .54, Cohen’s d = .19.

### Relationships Between Experiencing, the Early Working Alliance, and Outcome

All differences in means from pretreatment to posttreatment on all outcome measures were significant (p < .01; see Greenberg & Watson, 1998). For this study, outcome was measured as residual gains scores calculated as the standardized residuals of regressing initial scores onto final scores for the four outcome measures (Cronbach & Furby, 1970).

Relationships among all outcome measures and the WAI at Session 4 can be seen in Table 2. The relationship between the BDI and the SCL-90–R was high (Pearson’s r = .76). Both measures also related with virtually equal strength with the WAI (Pearson’s r = -.41 and -.42, respectively, ps < .05). In the interest of reducing the number of analyses, the BDI and the SCL-90–R were combined into a composite symptom measure by averaging the standardized residual gain scores for the two measures. The RSE and the IIP were analyzed independently. The dependent measures, therefore, were the BDI/SCL-90–R composite symptom measure, the RSE, and the IIP.

#### Early emotional processing, outcome, and the early alliance.

Correlations between early emotional processing, outcome, and the early alliance measures can be found in Table 3. As expected, significant relationships were found between early EE-EXP and both the BDI/SCL-90–R composite symptom measure and the RSE. However, no relationship between early EE-EXP and the IIP was found. The relationship between early on-theme EE-EXP and outcome was significant, and of similar magnitude, but only for the BDI/SCL-90–R composite symptom measure. There was no significant relationship between early on-theme EE-EXP and the RSE or the IIP. Early emotional processing was related to the early alliance for theme-related EEs only (Pearson’s r = .41, p = .02).

#### Late emotional processing, outcome and the early alliance.

The relationships between late emotional processing, outcome, and the early alliance are also found in Table 3. Higher late EE-EXP was related to decreases in reported symptom distress and to increases in self-esteem, but not to significant reductions in interpersonal problems. A similar pattern was present for correlations between late on-theme emotional processing and outcome.

Surprisingly, late off-theme EE-EXP was also correlated with outcome, significantly relating to decreases in symptoms measured by the BDI/SCL-90–R. A trend toward this relationship was also found for the RSE. No relationships between late emotional processing and the early alliance were found.

### Hierarchical Regression Analysis: Predicting Outcome

Hierarchical regression analyses were used to test the size and significance of incremental contributions to outcome of variables of interest, after controlling for the possible effect of variables entered in earlier steps. Change in the significance of variables’ beta coefficients from one step in the hierarchical regression to the next were noted for information relating to the moderating or mediating effects between variables (Baron & Kenny, 1986). All regression analyses used EE-EXP for the sum total of either early or late EEs as the independent measures. The rationale for this was twofold. First, there were somewhat stronger correlations
between early EXP and outcome for all early EEs versus the subset of early on-theme EEs (see Table 3). A test of the importance of late EXP to outcome would therefore be more stringent when controlling for EE-EXP for all early EEs. Second, a significant relationship and a trend toward a significant relationship were found between late off-theme EE-EXP and the BDI/SCL-90–R and RSE outcome measures respectively. This also argued for including off-theme EEs in the analysis.

Emotional processing on outcome. The first two hierarchical regressions assessed the incremental contribution of late EE-EXP to explaining outcome, controlling for individuals’ early EE-EXP. As no linear relationships between process measures and the IIP were found, only the BDI/SCL-90–R and the RSE were used as dependent measures.

The results of these hierarchical analyses are reported in Table 4. For both outcome measures, early emotional processing was only a significant predictor of outcome when considered alone in Step 1. In Step 2, late EE-EXP alone significantly and independently predicted therapeutic improvement. Late EE-EXP independently predicted 14% of the symptom measure only. No significant interactions between early EXP or late EXP and the alliance were found, so only main effects were entered into models.

The first hierarchical regression tested the contributions of early and late emotional processing independent of the early alliance. Results can be seen in Table 5. After controlling for the significant contribution (20%) to outcome explained by the early WAI, early emotional processing still added an almost-significant independent contribution (20%) to outcome explained by the early WAI and late emotional processing independent of the early alliance.

Discussion

The main objective of this investigation was to examine how emotional processing and the early alliance relate to psychotherapeutically predicted therapeutic improvement. Late EE-EXP alone significantly and independently explained 24% of the reported decrease in symptom distress, over and above the 17% explained by early EE-EXP. For self-esteem, late EE-EXP independently predicted 14% of the reported changes, explaining virtually equal amounts of improvement in self-esteem as did early EE-EXP.

Emotional processing, the early working alliance, and outcome. Two hierarchical analyses explored the relative contributions to outcome of emotional processing when also considering the early working alliance. As the RSE did not correlate significantly with the WAI, these models were run for the BDI/SCL-90–R composite symptom measure only. No significant interactions between early EXP or late EXP and the alliance were found, so only main effects were entered into models.

The first hierarchical regression tested the contributions of early and late emotional processing independent of the early alliance. Results can be seen in Table 5. After controlling for the significant contribution (20%) to outcome explained by the early WAI, early emotional processing still added an almost-significant independent explanation to outcome (8%). After controlling for both the early working alliance and clients’ early processing capacity, late emotional processing added 21% to the explanation of outcome. In the final model, both the alliance and late emotional processing independently predicted significant reduction in clients’ symptoms.

The alliance’s contribution to outcome, independent of emotional processing variables, was tested as well. The results of this analysis can be seen in Table 6. Results indicate that the early working alliance significantly and independently explained 8% of symptom improvement. This is considerably less than the amount of variance to outcome contributed by late emotional processing after controlling for both the early alliance and early emotional processing skill ($R^2 = 8\%$ vs. 21%, respectively).

Table 2

<table>
<thead>
<tr>
<th>Measure</th>
<th>BDI</th>
<th>RSE</th>
<th>IIP</th>
<th>WAI</th>
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<tbody>
<tr>
<td>BDI</td>
<td>.76**</td>
<td>−.44*</td>
<td>−.09</td>
<td>−.41*</td>
</tr>
<tr>
<td>SCL-90–R</td>
<td>−</td>
<td>−.49**</td>
<td>.04</td>
<td>−.42*</td>
</tr>
<tr>
<td>RSE</td>
<td>−</td>
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<td>.26</td>
<td>.13</td>
</tr>
<tr>
<td>IIP</td>
<td></td>
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Note. $n = 33$ for all correlations, except BDI with SCL-90–R, for which $n = 34$. Outcome is measured as residual gains. BDI = Beck Depression Inventory; SCL-90–R = Symptom Checklist–90—Revised; RSE = Rosenberg Self-Esteem Scale; IIP = Inventory of Interpersonal Problems; WAI = Working Alliance Inventory measured at Session 4; BDI = Beck Depression Inventory.

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

Table 3

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<tr>
<th>EXP-EE set</th>
<th>BDI/SCL-90–R</th>
<th>RSE</th>
<th>IIP</th>
<th>WAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early EE-EXP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total EEs</td>
<td>−.41*</td>
<td>.37*</td>
<td>.17</td>
<td>.31&quot;</td>
</tr>
<tr>
<td>EEs on theme</td>
<td>−.40*</td>
<td>.27</td>
<td>−.006</td>
<td>.41*</td>
</tr>
<tr>
<td>EEs off theme</td>
<td>−.09</td>
<td>.15</td>
<td>.26</td>
<td>−.22</td>
</tr>
<tr>
<td>Late EE-EXP</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total EEs</td>
<td>−.61**</td>
<td>.49**</td>
<td>.26</td>
<td>.22</td>
</tr>
<tr>
<td>EEs on theme</td>
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<td>.45**</td>
<td>.24</td>
<td>.18</td>
</tr>
<tr>
<td>EEs off theme</td>
<td>−.44*</td>
<td>.38*</td>
<td>−.10</td>
<td>.09</td>
</tr>
</tbody>
</table>

Note. For early and late EEs and early and late EEs on theme, $n = 34$ for correlations with the BDI and SCL-90–R, and $n = 33$ for correlations with the RSE and IIP; for early EEs off theme, $n = 27$ for all correlations; for late EEs off theme, $n = 24$ for correlations with the BDI and the SCL-90–R, and $n = 23$ for correlations with the RSE and IIP. Outcome is measured as residual gains. EXP = Experiencing; EE = emotion episode; BDI = Beck Depression Inventory; SCL-90–R = Symptom Checklist–90—Revised; RSE = Rosenberg Self-Esteem Scale; IIP = Inventory of Interpersonal Problems; WAI = Working Alliance Inventory post Session 4; EE-EXP = average Experiencing during emotion episodes; Early = Session 2; Late = second-to-last session.

" $p < .08$. * $p < .05$. ** $p < .01$.

Table 4

<table>
<thead>
<tr>
<th>Hierarchical Regression Analyses of Emotional-Processing Variables on the BDI/SCL-90–R Symptom Measure and the Rosenberg Self-Esteem Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process variable</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>BDI/SCL-90–R</td>
</tr>
<tr>
<td>Step 1</td>
</tr>
<tr>
<td>Step 2</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Note. Outcome measured as residual gains. BDI = Beck Depression Inventory; SCL-90–R = Symptom Checklist–90—Revised; RSE = Rosenberg Self-Esteem Scale; EE-EXP = average on Experiencing Scale during emotion episodes; Early = Session 2; Late = second-to-last session. * $p < .05$. ** $p < .01$. |
Symptom Measure

Emotional Processing and Outcome

treatment, deepening emotional processing may impact first on self
ment in interpersonal problems. The failure to show results in
in symptomology and increases in self-esteem but not improve-
pression. Depth of emotional processing predicted both decreases
tr

Hierarchical Regression Analysis of Early Working Alliance and
Table 5

<table>
<thead>
<tr>
<th>Process variable</th>
<th>Total $R^2$</th>
<th>$\Delta R^2$</th>
<th>$\Delta F$</th>
<th>df</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early alliance</td>
<td>.20</td>
<td>.20</td>
<td>7.90*</td>
<td>1, 32</td>
<td>-.45*</td>
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<tr>
<td>Step 2</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early alliance</td>
<td>.28</td>
<td>.08</td>
<td>3.46*</td>
<td>1, 31</td>
<td>-.35*</td>
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<tr>
<td>Early EE-EXP</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Early alliance</td>
<td>.49</td>
<td>.21</td>
<td>12.08**</td>
<td>1, 30</td>
<td>-.50**</td>
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<tr>
<td>Early EE-EXP</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late EE-EXP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Outcome is measured as residual gains. BDI = Beck Depression Inventory; SCL-90—R = Symptom Checklist—90—Revised; EE-EXP = average on Experiencing Scale during emotion episodes; Early = Session 2; Late = second-to-last session; Early alliance = Working Alliance Inventory post Session 4.

The results of this investigation provided some insight into the interrelationship between the early alliance and emotional processing.

Table 6

<table>
<thead>
<tr>
<th>Process variable</th>
<th>Total $R^2$</th>
<th>$\Delta R^2$</th>
<th>$\Delta F$</th>
<th>df</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early EE-EXP</td>
<td>.41</td>
<td>.41</td>
<td>10.50*</td>
<td>2, 31</td>
<td>-.19</td>
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<tr>
<td>Late EE-EXP</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early EE-EXP</td>
<td>.49</td>
<td>.08</td>
<td>4.78*</td>
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<td>-.30*</td>
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<td>Late EE-EXP</td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note. Outcome is measured as residual gains. BDI = Beck Depression Inventory; SCL-90—R = Symptom Checklist—90—Revised; EE-EXP = average on Experiencing Scale during emotion episodes; Early = Session 2; Late = second-to-last session; Early alliance = Working Alliance Inventory post Session 4.

emotional improvement during brief experiential treatment for de-
pression. Depth of emotional processing predicted both decreases in symptomology and increases in self-esteem but not improve-
ment in interpersonal problems. The failure to show results in relation to the IIP was puzzling. It may indicate that in a short
treatment, deepening emotional processing may impact first on self
rather than on interpersonal concerns. Such self changes may
require time to impact on interpersonal functioning.

Emotional Processing and Outcome

Consistent with the literature (Klein et al., 1986; Orlinsky &
Howard, 1978), and as hypothesized, clients entered therapy with
different capacities for emotional processing that predicted later
reports of decreased symptoms and increased self-esteem. These
results are consistent with relationships found between early ex-
periencing and outcome found in Goldman (1997), and reported by
Hendricks (2002).

Clearly, coming into experiential treatment with the propensity
for emotional processing appears advantageous. Early levels of
reported problems did not explain this because early emotional
processing was not related to the degree of initial distress for any
outcome measure.

Why certain individuals have propensities for emotional pro-
cessing is an interesting question and may relate to personality or
socialization. Klein et al. (1986), for example, reported that EXP is
related to introversion but negatively with concreteness. Family
socialization (Halberstadt, 1986), alexithymia (Bagby, Taylor, &
Ryan, 1986), and cultural norms may also relate to clients’ initial
tendencies to orient to and speak about emotional experiences.
Future research is needed to clarify the correlates of a capacity for
emotional processing.

Early emotional processing differences, however, were not the
entire story. Emotional processing was not stable, but significantly
deepened as the result of experiential treatment. Hierarchical re-
gression analyses demonstrated that early differences in emotional
processing related to outcome only when considered alone, and
they no longer predicted improvement once late emotional expe-
riencing was also considered. In all final analyses, the increased
depth of emotional processing evident late in therapy best pre-
dicted improvement and did so independently.

These results suggest that early emotional processing is medi-
ated (Baron & Kenny, 1986) by late emotional processing. Medi-
ation clarifies how early individual differences in emotional pro-
cessing may affect outcome. Clients who come into therapy with
some emotional processing skills may be more likely to use and
further improve that skill. However, early capacity for emotional
processing may not guarantee good outcome. Nor does entering
therapy without this capacity guarantee poor outcome. Therefore,
although likely an advantage, early emotional processing skill
appears not as critical as the ability to acquire and/or increase
depth of emotional processing throughout therapy. This was dem-
onstrated most rigorously by the hierarchical regression that con-
trolled for both early emotional processing skill and the early
working alliance. In this analysis, late emotional processing still
independently added 21% to the explained variance in reduction in
symptoms.

Important to note is that the average level of emotional process-
at termination of therapy was in the Level 3–4 range. This means
that at the end of therapy, clients were more consistently refering to their feelings and bodily felt experiences. Therefore,
rather than in-session statements of problem resolution, it was
clients’ tendency to more consistently refer inwardly toward emo-
tional experience and to symbolize it in words that related to
reports of improvement.

It is now clinically important to begin discriminating between
clients who do or do not engage in or learn the emotional processing
task set for them during experiential treatment. For some
clients, superficial emotional processing may reflect traits that can
be affected only by a long-term therapy. For others, it may reflect
an undeveloped skill with the potential to be stimulated in a brief
course of treatment. Exploring these issues may lead to better
identifying clients suitable for experiential treatment. These results
also have ramifications for intervention. If deepening emotional
processing enhances improvement, then it becomes important to
identify the interventions that help clients process their emotions.

Emotional Processing, the Early Alliance, and Outcome

The results of this investigation provided some insight into the
interrelationship between the early alliance and emotional process-

ing variables, as well as into their relative contributions to predicting alleviation of symptoms. In the analysis that most rigorously tested the role of late emotional processing on outcome, overlapping variance between emotional processing variables and the early alliance was assigned to the alliance by entering it in the model’s initial step. In this analysis, the early alliance accounted for 20% of the explained outcome variance. The subsequent hierarchical analysis tested the early alliance’s independent contribution to outcome. In this analysis, the early alliance was found to be less substantial, only 8%. These two analyses indicated that over half of the outcome variance that the early alliance explained when considered alone could also be explained by the emotional processing variables.

Considering the earlier analyses that excluded the effect of the early alliance altogether, evidence is provided that the majority of overlapping variance between the early alliance and the two emotional processing variables exists between the early alliance and early emotional processing. The contribution to outcome of early emotional processing was 17% when considered alone. Yet this was reduced by more than one half, to 8%, after first controlling for the alliance. The contribution of late emotional processing to explaining outcome was reduced by only 3% when controlling for the early alliance.

The greater shared variance between the early alliance and early emotional processing may have resulted partly because they were measured closer in time. However, a number of possible clinically relevant explanations should also be considered. One possible explanation is that therapists may build better alliances with clients who, at the onset of therapy, are more adept at emotional processing. Whether the establishment of an early working alliance depends on, or helps promote, early individual emotional processing is an important future question. Alternatively, some clients may take longer to build an alliance. If a good alliance is an important precondition before optimal emotional processing can occur, then for such clients, the late alliance may better predict both late emotional processing and outcome. Further research is needed to clarify how tightly linked the alliance—emotional processing relationship may be.

However, the early alliance had its own independent effect on outcome. This may reflect the curative power of the therapeutic bond over and beyond its role in promoting clients’ emotional processing. Identifying clients for whom the bond is especially important in change will be an important path for future study. Also of potential interest was the tendency of clients to report a good early alliance at Session 4 when Session 2 on-theme emotional processing was deeper. Early focus on emotional processing relating to clients’ core concerns may be important to alliance development.

To Be On-Theme or Not to Be On-Theme? There Are Some Questions

The most curious result in this investigation was that emotional processing relating to clients’ core issues was not a stronger predictor of outcome than emotional processing in general. A number of explanations of this are possible. First, emotion alone may point to important content, so ignoring emotion in any context may exclude therapeutically important material. Emotion may therefore be the important meta core theme, confirming the view that emotion carries important information relating to situations that have particular relevance to an individual’s well-being (Frijda, 1986; Greenberg, 2002).

That emotional processing for off-theme EEs-predicted outcome was also quite interesting. On the one hand, late emotional processing for off-theme EEs was significantly related to symptom alleviation. On the other hand, being frequently off-theme late in therapy had an indirect and negative prediction on outcome because it related to having lower late EE-EXP. These results together suggest that off-theme EE-EXP may have affected outcome in two distinct ways.

Superficial emotional processing may increase the tendency to be off-track. Being off-track from core concerns may also reinforce the tendency to process emotion more superficially. This may be the process at work for poorer outcome clients. Conversely, a preliminary examination of the content of late off-theme episodes for better outcome clients suggests that these clients may be generalizing their gains across wider domains than their initial core concerns. For example, a client with core themes relating to her husband had late off-theme EEs regarding her parents; another with a core theme relating to her mother had off-theme EEs relating to her female boss. This suggests that late in therapy the focus of work may be generalizing to related, but different, content or relationships and that new tangential subthemes with emotional relevance may be arising.

Emotional Processing: Change Process or Coincidence?

In this investigation depth of emotional processing at the end of therapy was coincident with psychotherapeutic improvement. However, because of the fact that this investigation measured late emotional processing at the end of therapy, this study has not demonstrated that the change process from one stage of emotional processing to the next occurred. To do so, emotional processing in the middle of therapy must be shown to predict both deeper levels of emotional processing late in therapy and outcome. To achieve this, emotional processing will need to be explored in a more differentiated manner so that the importance of particular stages of emotional processing to deeper stages and to outcome can be established more clearly.

Another issue that remains to be empirically resolved is the causal relationship between emotional processing and outcome. Although experiential treatments assume that deeper emotional processing is the mechanism through which improvement in symptoms occurs, it could be argued that emotional processing improves as depression is alleviated and that rather than being a cause of improvement, it is a beneficial byproduct of it. The fact that early levels of emotional processing did not relate to levels of distress argues against this. However, future explorations of the relationships between midpoint emotional processing during therapy and outcome will have to address these issues by also taking into consideration changes in levels of distress as emotional processing deepens.

References


Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable


Appendix

Transcript Segment of an Emotion Episode

C: It’s like I’m an orphan
T: That’s like that? Take some time
C: (sighs) I -, I’m
T: !be an orphan and tell your parents what it’s like, be alone
C: - - - it’s - very frightening
T: I’m afraid?
C: I’m really
T: I’m so alone?
C: I’m afraid, just - I feel like I have nobody to turn to
T: uh huh
C: no matter who I turn to it’s like - they don’t know me and they can only take so much of —what I feel, the rest of the time I have to deal with this on my own
T: - frightened
C: I’m very frightened because half the time I don’t know what to do
T: mmm
C: I need some support person to say that this is okay

Note. The emotion episode occurred during an empty-chair exercise within the context of working with unfinished business with parents. A dash (-) = 1-s pause; exclamation mark (!) before a word = emphasis.

Situation = therapist asks client to “be an orphan” (e.g., experience what it is like to be an orphan and speak from that experience); emotional reaction = fear; action tendency = none mentioned; appraisal of situation = there is nobody to turn to; appraisal of self = I do not know what to do, I have to deal with this on my own; need = support.

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