THE THERAPEUTIC PROCESS AS A PREDICTOR OF
CHANGE IN PATIENTS’ IMPORTANT RELATIONSHIPS
DURING TIME-LIMITED DYNAMIC PSYCHOTHERAPY

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Components of the therapeutic process have been shown to be moderately strong predictors of change in patients’ global interpersonal functioning during therapy. The authors sought to extend this research by examining how the therapeutic process in time-limited dynamic psychotherapy related to change in patients’ perceptions of a specific relationship as rated by the Structural Analysis of Social Behavior. Results showed that ratings of therapist warmth at Session 3 predicted increased warmth and decreased hostility in patient behavior at posttreatment. Therapist warmth at Session 16 was predictive of a decrease in submissive behavior by patients toward their significant other. The importance of the association between the therapeutic process and patients’ important interpersonal relationships is discussed.

The role of the therapeutic process as a predictor of outcome in psychotherapy is one of the most widely recognized and well-supported areas in psychotherapy research (Orlinsky, Rønnestad, & Willutzki, 2004). Whereas the majority of psychotherapy research has used symptom-based measures of outcome, reviews have called for a greater emphasis on the measurement of outcome across multiple domains of functioning, including patients’ cognitive, affective, and interpersonal experience (Goldfried, 1994). The current study sought to examine how facets of the therapeutic process relate to changes in a specific relationship described by patients as being important to them and their therapy during time-limited dynamic psychotherapy (TLDP; Strupp & Binder, 1984).

Many of the studies examining an association between patient–therapist interactions and interpersonal outcome have come from the literature on therapeutic alliance. These studies have supported an association between general measures of the therapeutic or working alliance and global changes in interpersonal functioning or interpersonal problems (e.g., Gaston, Piper, Debbane, Bienvenu, & Garant, 1994; Holtzworth-Munroe, Jacobson, DeKlyen, & Whisman, 1989; Johnson & Talitman, 1997; Stiles, Agnew-Davies, Hardy, Barkham, & Shapiro, 1998). Of these studies, we are aware of only one that reported an association between the alliance and behavioral patterns in a specific relationship. Brown and O’Leary (2000) found observer ratings of husbands’ working alliance to be predictive of decreases in husbands’ psychological and physical aggression toward their wives.

We sought to extend prior research by examining how a general measure of the therapeutic process relates to changes in a specific interpersonal relationship rated using the Structural Analysis of Social Behavior (SASB; Benjamin, 1974). The Vanderbilt Psychotherapy Processes Scales (VPPS; Suh, O’Malley, Strupp, & Johnson, 1989) was used to assess the therapeutic process. Although not created as an alliance measure per...
se, the VPPS captures facets of the therapeutic process relevant to many conceptions of the alliance found to be important to global interpersonal change during therapy, including patient involvement in treatment (Gaston et al., 1994) and therapist warmth (Stiles et al., 1998). The VPPS also measures a key facet of the therapeutic process theorized to be important for interpersonal change in TLDP, referred to as exploratory process. Exploratory process measures the amount of work patients and therapists do, during session, to explore patients’ recurrent interpersonal relationships.

We hypothesized that these three elements of the therapeutic process (i.e., therapist warmth, patient involvement, exploratory process), when assessed early in treatment, will be related to an increase in affiliation and autonomy and a decrease in hostility and enmeshment in a specific patient relationship. We also examined how ratings of the same therapy process variables, rated toward the end of treatment, relate to changes in a specific patient–significant other relationship.

**Method**

**Participants**

The Vanderbilt-II project (Strupp, 1993) was a 5-year TLDP study (Strupp & Binder, 1984). A total of 45 patients had complete data and were selected for the current study. The mean age for all patients in the Vanderbilt project was 41.04 years (range = 24–64 years); 77% were women, 95% were Caucasian, and 79% completed some college. All patients met criteria for either an Axis I or II diagnosis based on the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.; American Psychiatric Association, 1980) and participated in a maximum of 25 sessions ($M = 21.5, SD = 6.1$), each lasting for approximately 50 min.

**Measures**

**SASB (Benjamin, 1974).** Patients’ significant other relationships were measured using the Intrex long form (Benjamin, 1983). The Intrex is a self-report measure of the SASB model used to assess interpersonal relationships and intrapsychic behavior. The SASB is a three-surface circumplex model of interpersonal behavior based on the dimensions of focus, affiliation, and interdependence. Each of the three SASB surfaces represents a particular focus or perspective on an interpersonal relationship. Surface 1 rates behaviors directed to, for, or about another person (e.g., blame, control, affirm). Surface 2 rates behaviors directed to, for, or about the self (e.g., sulk, submit, disclose). Whereas Surfaces 1 and 2 are interpersonal in nature, Surface 3 represents intrapsychic behavior, or actions directed toward the self, and was not analyzed in the current study. All three SASB surfaces, or foci, are two-dimensional models based on a blend of affiliation–hostility on the horizontal axis and independence–enmeshment on the vertical axis (see Benjamin, 1994, for a more detailed description of the SASB model).

In the current study, patients were asked to rate a relationship they saw as being important to them and their therapy. Patients used Surface 1 to rate their perceptions of how they act toward their significant other and how their significant other acts toward them. Patients used Surface 2 to rate their perceptions of how they react to their significant other and how their significant other reacts to them. Each of these surfaces were rated when the relationship was at its best and again when the relationship was at its worst for a total of eight surfaces and 288 items rated on a scale ranging from 0 (*never, not at all*) to 100 (*always, perfectly*) in 10-point increments. Cronbach’s alphas for SASB variables in the current study ranged from .79 to .96. Persons rated by patients included husbands ($n = 16$), wives ($n = 5$), girlfriend–boyfriend ($n = 7$), child ($n = 2$), and a nonspecified significant other ($n = 15$). Intrex ratings of the significant other relationship were completed at intake and termination.

There are several methods for analyzing SASB Intrex data (Pincus, Newes, Dickinson, & Ruiz, 1998). In the current study, we used a single method allowing for the separate assessment of affiliation and interdependence. First, to assess affiliation, we created two summary scores for each surface referred to as the attachment group (AG) and disrupted attachment group (DAG; Florsheim, Henry, & Benjamin, 1996). AG scores are the sum of 17 items characterized by affiliation. DAG scores are the sum of 17 items characterized by hostility. Similarly, to assess interdependence, we created two summary scores for each surface referred to as the enmeshment group (ENM) and the autonomy (AUT) group. ENM scores are the sum of 13 items character-
ized by controlling behavior when focus is on other (Surface 1) or submissive behavior when focus is on self (Surface 2). The AUT scores are the sum of 13 items characterized by freeing behavior when focus is on other (Surface 1) or separating behavior when focus is on self (Surface 2). The rationale for creating separate AG, DAG, AUT, and ENM scores is based on the SASB model of normality (Florsheim et al., 1996). According to this model, normal development involves an increase in affiliation, a decrease in hostility, and a balance of independence and enmeshment. By separating the SASB variables into the four categories described previously, we were able to assess how facets of the therapeutic process uniquely relate to these interpersonal dimensions.

VPPS. The VPPS consists of 80 items that comprise three scales: therapist warmth, patient involvement, and exploratory process (Suh et al., 1989). Two independent observers rated the therapeutic process and were trained to an interrater reliability criterion greater than .85 (Henry, Strupp, Butler, Schacht, & Binder, 1993). Each observer rated the second 15 min of Sessions 3 and 16. In the current data set, interrater reliabilities (Windholz & Silberschatz, 1988) and internal consistencies (Suh et al., 1989) were .70 or higher. Pearson correlations between VPPS ratings at Sessions 3 and 16 were all low and non-significant. Intercorrelations between VPPS scales were also low, ranging from .02 to .34; the only significant correlation was between therapist warmth and patient involvement in therapy ($r = .34, p < .05$).

Results

Data Analysis

Our initial approach to data analysis was to examine the distributions and intercorrelations among AG, DAG, ENM, and AUT scores across the eight SASB surfaces. Two general patterns emerged from the intercorrelations. For AG and DAG scores, intercorrelations were highest across ratings of actions and reactions, with Pearson correlations ranging from .64 to .93. To reduce redundancy in the data and decrease the likelihood of Type I errors, we summed AG scores across significant others’ actions and reactions at best, resulting in a single AG score for significant others’ behavior at best. The same procedure was done for significant others’ actions and reactions at worst, resulting in a single AG score for significant others’ behavior at worst. We followed the same procedure for patients’ actions and reactions, resulting in two patient AG scores: one for best and worst. The same procedure was conducted for DAG scores, resulting in two DAG scores for significant others’ behavior (at best and worst) and two DAG scores for patients’ behavior (again at best and worst).

Intercorrelations for ENM and AUT, although lower, were highest and significant across best and worst states; Pearson correlations ranged from .45 to .75. ENM and AUT scores were collapsed across best and worst for significant others’ actions, best and worst for significant others’ reactions, best and worst for patients’ actions, and best and worst for patients’ reactions. Summation resulted in one ENM score and one AUT score for each of the following surfaces: significant others’ actions, significant others’ reactions, patients’ actions, and patients’ reactions. Pearson correlations between summed AG, DAG, ENM, and AUT summary scores were moderate, ranging from $-.22$ to $.52$. After summation, residual gain scores were created to account for initial levels of AG, DAG, ENM, and AUT.

Therapeutic Process, AG, and DAG in the Patient–Significant Other Relationship

To examine the relationship between the therapeutic process and patients’ significant other relationship, a series of eight hierarchical regressions were conducted, with AG and DAG scores regressed onto VPPS ratings at Session 3 in Block 1 and VPPS ratings at Session 16 in Block 2. Therapeutic process at Session 3 accounted for 21% of the variance in level of AG in patients’ behavior at best, $F(3, 41) = 3.72, p < .02$. Therapeutic process at Session 16 was not significant, $F(3, 38) = 2.14$. Analysis of beta weights showed therapist warmth at Session 3 to be predictive of greater levels of AG in patients’ behavior at best (see Table 1).

Therapeutic process also significantly pre-

1 All intercorrelations are available from Jamie D. Bedics.
2 Because of space limitations, only statistically significant SASB surfaces are presented. Complete results are available from Jamie D. Bedics on request.
Therapeutic process at Session 3 accounted for 18% of the variance in level of DAG in patients’ behavior, $F(3, 41)=2.96, p=.04$. Session 16 process variables accounted for an additional 15% of the variance in level of DAG, $F(3, 38)=2.72, p=.05$. Session 3 beta weights showed therapist warmth and exploratory process to be significant predictors of lower levels of DAG in patients’ behavior (see Table 1). In Block 2, therapist warmth at Session 3 remained a significant predictor ($\beta=-0.33, p<.02$), whereas exploratory process at Session 3 did not ($\beta=-0.18, ns$). At Session 16, patients’ involvement in treatment was a significant predictor of lower levels of DAG in patients’ behavior at best (see Table 1).

When the relationship was rated at its worst, Session 3 process variables accounted for 20% of the variance in level of AG in patients’ behavior, $F(3, 41)=2.345, p<.05$. Session 16 process variables accounted for an additional 22% of the variance but were not significant, $F(3, 38)=1.20, ns$. Beta weights at Session 3 showed exploratory process to predict an increase in level of AG in patients’ behavior when the relationship was rated at worst but only approached significance (see Table 1).

**Discussion**

Results from the current study provide preliminary support for an association between the therapeutic process and changes in a specific relationship reported by patients as being important to them and their therapy. The most consistent finding in the current study was the association between the observed warmth of the therapist and changes in patients’ behavior toward their significant other. Early in treatment the observed warmth of the therapist predicted both an increase in affiliative behavior and a decrease in hostile behavior by patients toward their significant other when the relationship was rated at its best. These results largely complement earlier findings associating observed therapist warmth with clinical outcomes (Henry, Schacht, & Strupp, 1986) and patients’ self-directed behavior (Henry, Schacht, & Strupp, 1990).

Toward the end of therapy observed therapist

<table>
<thead>
<tr>
<th>Intrex rating</th>
<th>TW3</th>
<th>EP3</th>
<th>PI3</th>
<th>TW16</th>
<th>EP16</th>
<th>PI16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s behavior toward significant other at best</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AG</td>
<td>0.41****</td>
<td>0.09</td>
<td>0.12</td>
<td>-0.18</td>
<td>0.16</td>
<td>0.05</td>
</tr>
<tr>
<td>DAG</td>
<td>-0.31**</td>
<td>-0.29**</td>
<td>0.07</td>
<td>0.04</td>
<td>-0.22</td>
<td>-0.36**</td>
</tr>
<tr>
<td>Patient’s behavior toward significant other at worst</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AG</td>
<td>0.22</td>
<td>0.26*</td>
<td>0.23</td>
<td>-0.13</td>
<td>0.27</td>
<td>0.00</td>
</tr>
<tr>
<td>Patient’s reaction to significant other</td>
<td>0.14</td>
<td>0.14</td>
<td>0.11</td>
<td>-0.42***</td>
<td>0.21</td>
<td>-0.13</td>
</tr>
</tbody>
</table>

**Note.** VPPS = Vanderbilt Psychotherapy Processes Scale; TW3 = therapist warmth at Session 3; EP3 = exploratory process at Session 3; PI3 = patient involvement at Session 3; TW16 = therapist warmth at Session 16; EP16 = exploratory process at Session 16; PI16 = patient involvement at Session 16; AG = attachment group; DAG = disrupted attachment group; ENM = enmeshment group.

* $p = .07.  ** p < .05.  *** p < .01.  **** p < .005.
warmth was the only process variable associated with changes in levels of interdependence in the patient–significant other relationship. In the current study, therapist warmth was associated with patients’ reacting to their significant other with less submission. This result is consistent with previous research suggesting that problems in assertion may be most amenable to change during therapy (Horowitz, Rosenberg, Baer, Uriñé, & Villaseñor, 1988).

The more active components of the therapeutic process, including exploratory process early in treatment and patient involvement toward the end of treatment, were consistent in predicting a decrease in hostility by patients toward their significant other, again when the relationship was rated at its best. These results were not significant when the relationship was rated at its worst, suggesting that the association between the therapeutic process and patients’ behavior toward their significant other may be dependent on the state of the relationship (i.e., when things are going well vs. poorly). Future research might continue to explore the possibility of a State × Trait × Situation interaction in relation to the therapy process and patients’ significant other relationships (Benjamin, 1996). For instance, an assessment of the state of the relationship could be informative as therapists determine the appropriateness of their therapeutic interventions (Crits-Christoph & Connolly-Gibbons, 2001; Karpiak & Benjamin, 2004) or as the transference develops during the course of treatment (Connolly et al., 1996).

There are several limitations to the current study. First, the number of regressions conducted increases the possibility of a Type I error. The consistency of the findings with hypotheses, the large effect sizes for some of the significant and nonsignificant effects, and the use of summary scores reduce this likelihood; however, the results should be considered preliminary and must be replicated in future research. In addition, correlational analyses preclude any causal interpretation of the association between the therapeutic process and interpersonal functioning. A third limitation lies in the likelihood of interpersonal change occurring between pretreatment interpersonal ratings and the first ratings of the therapeutic process at Session 3. It is indeed plausible that interpersonal change occurred before our assessment of the therapeutic process or is an artifact of a third, unaccounted for variable such as symptom severity (Klein et al., 2003).

References


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