How Do Interpretations Influence the Process of Psychotherapy?

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Due to imprecise methods of evaluating therapist behaviors, little progress has been made in demonstrating how the therapist contributes to the success of psychotherapy. More important, the suitability of the therapist's behavior to the particular needs of a given patient has not been adequately assessed. In this article, we describe a new approach for assessing the suitability of therapist interventions. We hypothesized that the suitability of interpretations would be more predictive of patient progress than the category of interpretation: transference versus nontransference. The transcripts of three brief psychodynamic psychotherapies were studied. Interpretations in the three therapies were identified and categorized as transference or nontransference and were then rated for suitability. Patient productivity was rated using the Experiencing Scale. As predicted, in each case suitability of interpretations correlated significantly and positively with patient productivity, whereas type of interpretation did not correlate with patient progress.

Schools of psychotherapy advocate specific therapist behaviors or techniques as the effective ingredients of treatment. Within the psychoanalytic school, for instance, there is strong emphasis on facilitating patient insight through interpretation (e.g., Bibring, 1954). One type of interpretation, the transference interpretation, is thought to be particularly potent (Loewald, 1960, 1971; Macalpine, 1950), and some writers have suggested that transference interpretations may be a necessary ingredient, both in effective analytic therapies (Gill, 1982; Grensen, 1967; Stone, 1967) and in brief dynamic psychotherapy (Malan, 1963, 1976a, 1976b).

However, empirical studies on the impact of therapist interpretations have yielded inconsistent, and often contradictory, findings. Some studies have shown that interpretations facilitate patient progress (e.g., Claiborn, 1982; Dittmann, 1952; Garduk & Haggard, 1972; Hill, Carter, & O'Farrell, 1983), whereas others have found that interpretations inhibit progress (Bergman, 1951; Snyder, 1945; Sloane, Staples, Cristol, Yorkston, & Whipple, 1975). Investigations of therapist behaviors share a common methodological problem: they fail to assess the "goodness of fit" between the therapist's interventions and the patient's particular problems and treatment goals. For instance, a patient may fail to respond to a therapist's interpretations because the therapeutic technique of interpretation is ineffective or because the particular interpretation (or line of interpretation) is not pertinent to that patient. Previous studies have mistakenly assumed that therapists are uniformly accurate in their interpretations. Kiesler (1966) referred to this assumption as the "uniformity myth" in therapy research and showed how it has contributed to the lack of consistent findings in research literature. What is needed, then, is a procedure for evaluating the accuracy or suitability of therapist behaviors to the particular problems and needs of the patient (cf. Elliott, 1983; Fiske, 1977; Parloff, Waskow, & Wolfe, 1978; Schaffer, 1982)—a procedure that can determine when a patient will be helped or hindered by a particular interpretation.

Assessing the quality or suitability of therapist behaviors requires (a) identifying the patient's problems, needs, and goals and (b) determining whether a given intervention appropriately addresses them. In this article we describe a new approach for determining the suitability of therapist behaviors. This approach is based on a theory of therapy developed by Weiss (in press) and empirically studied by the Mount Zion Psychotherapy Research Group (Sampson & Weiss, in press; Weiss, Sampson, & The Mount Zion Psychotherapy Research Group, in press).

Weiss (in press) has proposed that psychopathology stems from unconscious pathogenic ideas or false beliefs that are typically based on traumatic childhood experience. According to Weiss, a patient enters psychotherapy with a plan for solving problems. The patient's plan may be thought of as a strategy (with conscious or unconscious elements) for disconfirming pathogenic beliefs by developing greater understanding of them in therapy and by testing them in the relationship with the therapist. The therapist's interventions will be most helpful when they are compatible with the patient's plan—that is, when they address the patient's unconscious and conscious goals and the obstacles or pathogenic beliefs that have prevented the patient from pursuing those goals.

Previous studies have shown that patients' plans can be reliably inferred (Bush & Gassner, in press; Caston, in press; Cur-
Prior to treatment, the therapists knew nothing about the patients except that they had been accepted for brief therapy. Therapists were unaware of our hypotheses and had no access to patient plan formulations. All cases were studied after therapy had been completed.

**Procedure**

Test batteries were completed by the therapist, the patient, and the independent evaluator before and immediately after treatment, and again at 6-month and 1-year follow-up points. Patients gave written, informed consent to have their therapies audiotaped. After therapy was completed, audiotapes of the intake interview, therapy sessions, and follow-up interviews were transcribed.

The source of the data for this study was the verbatim transcripts of the brief (16 weekly sessions) psychodynamically oriented psychotherapies of the three cases. The research design involved (a) locating all therapist interpretations, (b) identifying all transference and nontransference interpretations, (c) rating the plan compatibility of interpretations, (d) measuring the patient's behavior (in-session productivity) immediately before and after interpretations, (e) assessing changes in patient behavior (from pre- to postinterpretation), and (f) comparing the extent to which category of interpretation (transference vs. nontransference) and plan compatibility of interpretation predicted these change scores. The data were analyzed separately for each case in a repeated single-case design because the patients' plans, and thus the standards for assessing plan compatibility of interpretations, differed from one another.

**Measures**

**Identifying Transference Interpretations**

All interventions (i.e., any therapist comment) were classified using the typology devised by Malan (1963, 1976b; see also Marziali, 1984; Marziali & Sullivan, 1980). We selected the Malan intervention typology because it is the only system that has been successfully used to study transference interpretations. Most other classification systems (for a review see Russell & Stiles, 1979) do not explicitly include transference; those that do (e.g., Gill & Hoffman, 1982) have not yet been proven reliable. According to Malan's typology, an interpretation is "any intervention in which the therapist suggests or implies an emotional content in the patient over and above what the patient has already said" (Malan, 1976b, p. 213). A transference interpretation is defined as any interpretation directed toward the patient's feelings about the therapist or the therapy.

For each case, four clinical judges (psychology graduate students) independently read the complete verbatim transcript and categorized all therapist interventions as either interpretations or noninterpretations (N). Then all interpretations were further categorized as either transference or nontransference on the basis of the person toward whom the interpretation was directed. Whereas transference interpretations (T) were those that were directed toward the patient's feelings about the therapist or therapy, nontransference interpretations could be undirected, or directed toward the patient's feelings about themselves (U), about a significant other (O), or about parents or siblings (P). All transference interpretations and the most frequently occurring category of nontransference interpretations in each case were studied.

**Assessing Plan Compatibility**

Formulation of the patient's plan. A dynamic case formulation (the plan diagnosis) was used that included a description of the patient's initial problems and history as well as the following specific components: (a) the patient's goals for therapy, (b) the inner obstacles (pathogenic beliefs) preventing the attainment of goals, (c) the means by which
the patient would test the therapist to disconfirm his/her pathogenic beliefs, and (d) the insights that would be helpful to the patient.

As an illustration, excerpts from the plan formulation of Case 3 ("Myra") follow:

Myra, a 30-year-old photographer, sought therapy because she was depressed about her inability to feel committed to a man with whom she had been involved for 6 years. The formulation team inferred that this was another in a series of unsatisfying, masochistic relationships and concluded that Myra's problems stemmed from her extreme worry about her boyfriend—in particular, her fear that he would be destroyed by her leaving. These concerns appeared to be related to Myra's childhood relationship with her mother, who was extremely unhappy in her marriage and constantly complained about how victimized she was by her husband. She relied on Myra as a confidante and as her primary source of emotional support. Because of these experiences, Myra had developed the unconscious belief that if she were either happy alone or fulfilled in a relationship, her mother would feel abandoned and hurt. Myra therefore identified with her mother by becoming involved with men in unsatisfying relationships, and she complied with her mother's desire that she always be available to her.

The formulation team diagnosed that Myra's plan for therapy centered on her need to overcome her pathogenic identification and compliance with her mother. This would involve exploring the genetics of her problems and working to disavow the belief that her independence would hurt her mother (and others). She might thus test to see if the therapist expected her to be self-sacrificing, if the therapist was critical of her attending to her own needs, or if the therapist was hurt if she expressed disagreement. Myra would be helped by developing insights into her identification and compliance with her mother and, in particular, into how she had allowed herself to be victimized in order to avoid feeling blaming or guilty.

A team of five experienced clinicians prepared a plan formulation for each of the three cases as part of a prior study determining the reliabilities of dynamic formulations (Curtis et al., 1985; Rosenberg et al., in press). These studies assessed the interjudge reliabilities of each of the components of the formulations. For the three cases in this study, average reliabilities (intraclass correlations) for four to six judges were .89 for goals, .90 for obstructions, 82 for tests, and .86 for insights.

Plan compatibility of interpretations. The Plan Compatibility of Interventions Scale (PCIS; Caston, in press) is a 7-point Likert scale ranging from -3 (strongly antiplan) to +3 (strongly proplan), with 0 as the midpoint containing both proplan and antiplan aspects. For example, the following interpretation from Case 3 was rated +3: "You feel guilty about leaving your boyfriend because you believe that he, like your mother, would be hurt if you left." The following interpretation was rated -3: "Your problems with your boyfriend are a manifestation of your feelings that you would be lost if he left you."

For each case, four to six judges were given packets containing the plan formulation, all the selected interpretations from the case, and a copy of the PCIS. The judges were experienced psychologists and psychiatrists who were trained in our theoretical model. The judges were instructed to familiarize themselves with the plan formulation and, working independently, to rate each interpretation on the PCIS, using the plan formulation as the standard for determining plan compatibility. All interpretations were isolated from the transcript and presented to PCIS judges in random order. The judges were thus blind to the patient's response to the interpretation; they were also blind to the final outcome of each case. The means of the judges' ratings were used in all subsequent analyses.

Measuring Patients' Immediate Responses to Interpretation

Immediate patient progress was evaluated by applying the Experiencing Scale (EXP; Klein, Mathieu, Gendlin, & Kiesler, 1970) to the pre-interpretation, or baseline, and postinterpretation, or effect, segments of patient speech. The EXP Scale is a widely used psychotherapy process scale (Kiesler, 1973) that has been successfully applied to the study of psychoanalytic therapy (Luborsky & Spence, 1978; Silberschatz, in press). Derived from a client-centered framework, this 7-point scale taps such constructs as insight, patient involvement, lack of resistance, and productive free-association (Kiesler, 1973).

Six psychology undergraduate and graduate students received the standardized training described in the EXP Scale manual (Klein et al., 1970). These raters scored both baseline and effect segments of patient speech for each selected interpretation. Segments consisted of patient speech before or after another intervention by the therapist, and they averaged about 3 min in length. Segments were isolated from the transcript and presented to judges in random order. Thus the judges were blind to where the segment occurred in therapy, what interpretation it was associated with, or even to whether it was a baseline or effect segment. The judges were also blind to treatment outcome.

Reliabilities

For each case, judges independently categorized all interventions according to Malan's typology. After these independent ratings were analyzed, a discussion session was held for each case to refine the application of the scoring rules to the idiographic verbal style of the therapists. Judges then independently rated those interventions on which they had initially disagreed. For the initial ratings, judges averaged 81% agreement across the three cases; after rerating, judges averaged 91% agreement (see Table 1). Although the absolute number of interventions varied widely from case to case, the percentage of interventions classified as interpretations (approximately 30%) was very similar.

Interjudge reliabilities for the PCIS and the EXP Scale are presented in Table 2. Because both are continuous rating scales, reliability was assessed using the intraclass correlation (Ebel, 1951; Guilford, 1954). Two figures are reported: $r_{w}$ is the estimated reliability of the typical judge; and $r_{01}$ is the reliability of the mean of $k$ judges' ratings (coefficient alpha). Because all subsequent data analyses utilized the means of the judges' ratings, $r_{01}$ is the appropriate reliability figure.

Results

Effects of Transference and Nontransference Interpretations on Immediate Patient Progress

To assess the relation between the category of interpretation and patient's immediate progress, $t$ tests were conducted with
Table 2
Interjudge Reliabilities for the PCIS and the Experiencing Scale

<table>
<thead>
<tr>
<th>Patient</th>
<th>Judges ((N))</th>
<th>(r_{0})</th>
<th>(r_{k})</th>
<th>Judges ((N))</th>
<th>(r_{0})</th>
<th>(r_{k})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>6</td>
<td>.58</td>
<td>.89</td>
<td>3</td>
<td>.57</td>
<td>.80</td>
</tr>
<tr>
<td>Case 2</td>
<td>6</td>
<td>.55</td>
<td>.88</td>
<td>4</td>
<td>.54</td>
<td>.82</td>
</tr>
<tr>
<td>Case 3</td>
<td>4</td>
<td>.58</td>
<td>.85</td>
<td>6</td>
<td>.51</td>
<td>.86</td>
</tr>
</tbody>
</table>

Note: PCIS = Plan Compatibility of Interventions Scale; \(r_{0}\) is the estimated reliability of the average judge; \(r_{k}\) is the estimated reliability of \(k\) judges' ratings (coefficient alpha).

The residualized gain scores on the EXP Scale for transference and nontransference interpretations (see Table 3). The residualized gain scores (Cohen & Cohen, 1975) measure the variance in the effect segment not predicted by the baseline segment. In two of the cases (Cases 2 and 3), there were no significant differences between transference and nontransference interpretations on the residualized EXP scores. In one case (Case 1), the patient displayed greater improvement on the EXP Scale following nontransference interpretations. Thus, transference interpretations did not further immediate patient progress more than nontransference interpretations.

It could be argued that the effects of transference interpretations are not detectable immediately after an interpretation is delivered and that the entire therapy session rather than a series of single interpretations may be a more appropriate unit of analysis. To test this hypothesis, we computed the proportion of transference interpretations in each therapy session (the number of transference interpretations divided by the total number of interpretations for the session) and correlated this figure with mean-per-hour residualized EXP scores. Results of this correlational analysis were essentially identical to \(t\)-test results of the single interpretations: in two of the cases (Cases 2 and 3), there were no significant correlations between the proportion of transference interpretations and the patient's mean-per-hour residualized EXP score. In Case 1 there was a high negative correlation, \(r (12) = -.81; p < .005\). Thus, high percentages of transference interpretations were not related to high levels of patient productivity; in one case, the patient was most productive when the percentage of transference interpretations was low.

Table 3
Results of \(t\)-Test Comparisons of Categories of Interpretations on Residualized Experiencing Scale Scores

<table>
<thead>
<tr>
<th>Patient</th>
<th>Transference interpretations</th>
<th>Nontransference interpretations</th>
<th>(t)</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N) (M) (SD)</td>
<td>(N) (M) (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case 1</td>
<td>53 -.139 .647</td>
<td>25 .355 .570</td>
<td>3.41*</td>
<td>53.0</td>
</tr>
<tr>
<td>Case 2</td>
<td>24 -.129 .744</td>
<td>65 .052 .694</td>
<td>1.03</td>
<td>38.7</td>
</tr>
<tr>
<td>Case 3</td>
<td>37 -.038 .541</td>
<td>33 .042 .542</td>
<td>.62</td>
<td>67.1</td>
</tr>
</tbody>
</table>

\(* p < .05, \) two-tailed.

Table 4
Correlations Between PCIS Scores and Residualized Experiencing Scale Scores

<table>
<thead>
<tr>
<th>Patient</th>
<th>Individual interpretations</th>
<th>Hourly mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n) (r)</td>
<td>(n) (r)</td>
</tr>
<tr>
<td>Case 1</td>
<td>66 .54***</td>
<td>12 .78**</td>
</tr>
<tr>
<td>Case 2</td>
<td>76 .28**</td>
<td>15 .54*</td>
</tr>
<tr>
<td>Case 3</td>
<td>66 .25*</td>
<td>14 .57*</td>
</tr>
</tbody>
</table>

Note: PCIS = Plan Compatibility of Interventions.
* \(p < .05, \) two-tailed. ** \(p < .01, \) two-tailed. *** \(p < .001, \) two-tailed.

Effects of Plan Compatibility on Patient Progress

To test the hypothesis that suitability of interpretations is positively associated with a deepening in the patient's immediate progress, we correlated the PCIS scores with the residualized EXP scores for each case. Across all three cases, the hypothesis was supported; there was a positive and statistically significant correlation between these variables. Though reliabilities for PCIS ratings were generally high (see Table 2), judges did not agree on several interpretations in each case. Thus, we calculated a second set of correlations with only those interpretations on which judges' ratings on the PCIS were within 1 standard deviation, assuming that widely discrepant ratings meant that the interpretation was ambiguous. This selection procedure resulted in a small drop in the number of interpretations studied (about 10 in each case), but it insured agreement on the degree of plan compatibility of each interpretation. For this analysis, the correlations between patient progress (as measured by the residualized gain scores of the EXP Scale) and the PCIS were again positive and statistically significant (see Table 4). Interpretations judged to be plan-compatible tended to be followed by an increase in the patient's EXP score, whereas interpretations judged to be plan-incompatible tended to be followed by a decrease in the patient's EXP score.

Although the correlations between the PCIS and the residualized EXP scores were statistically significant in all three cases, the cumulative impact of interpretations is probably not captured as fully in a single effect segment as it could be in an accumulation of effects throughout a therapy hour. To measure this, PCIS scores of all interpretations and residualized EXP scores were averaged by hour. The hourly mean PCIS scores were then correlated with hourly mean residualized EXP scores. The resulting correlations were much larger than the correlations for the immediate effects dispersed throughout the entire therapy (see Table 4). A graph of the mean-per-hour PCIS and residualized EXP scores is shown in Figure 1.

The correlations between PCIS scores and residualized EXP scores led us to reevaluate our findings on the impact of transference interpretations. In our earlier analysis, we had not distinguished between suitable (plan-compatible) and unsuitable (plan-incompatible) transference interpretations. Perhaps suitable transference interpretations would be more effective than suitable nontransference interpretations. To answer this question, we selected only those transference and nontransference
interpretations that received a rating of +1 or more on the PCIS (i.e., interpretations rated mildly to strongly plan-compatible). We compared the residualized EXP scores following the plan-compatible transference interpretations with the residualized EXP scores following the plan-compatible nontransference interpretations on a series of t tests. These calculations yielded results the same as when suitability of interpretation was not controlled (see Table 3). Results show that suitable transference interpretations did not further immediate patient progress more than suitable nontransference interpretations.

Effects of Therapist Behavior on Treatment Outcome

It is logical to assume that what happens in the process of therapy contributes to the outcome of therapy and that a positive therapeutic process should result in a good treatment outcome. Although the sample size of the present study does not allow for a systematic analysis of outcome data, our findings suggest that process is related to outcome. The three cases studied represent a range of outcomes: Case 1 had a very good outcome; Case 2, a moderately good outcome; and Case 3, a poor outcome. When interpretations were classified as proplan (interpretations rated between +1 and +3 on the PCIS), antiplan (-1 to -3), and ambiguous (+1 to -1), the percentages of proplan interpretations in the good outcome cases were high (89% and 80%, respectively) and the percentages of antiplan interpretations were low (2% and 0%). By contrast, the percentage of proplan interpretations in the poor outcome case (Case 3) was low (50%), and the percentages of antiplan (6%) and ambiguous (44%) interpretations were relatively high. Although these findings need to be replicated on a larger sample of patients and therapists, the data suggest that patients who receive a high proportion of plan-compatible interpretations will have better treatment outcomes than patients who receive a low proportion of such interpretations.

Discussion

Our results support the hypothesis that the suitability of interpretations is a better predictor of patients’ immediate progress than is the category of interpretation. Across the three cases, suitability of interpretations consistently accounted for significant proportions of variance in immediate patient progress, whereas category of interpretation did not account for any significant variation in patient progress. The findings presented here, together with data from previous studies (Bush & Gassner, in press; Silberschatz, in press) suggest that the plan-compatibility concept provides a powerful, case-specific approach for assessing the quality of therapist interventions.

Of course, factors other than plan compatibility do contribute to therapeutic progress. For instance, therapist variables such as skillfulness (Schaffer, 1983; Yeaton & Sechrist, 1981), maintaining a therapeutic or helping alliance (Luborsky, 1984), and fostering a sense of hope (Frank, 1982) may also play an important role in the process and outcome of therapy. The degree of overlap between these measures and our concept of plan compatibility is not yet clear and needs to be examined (such studies are currently being carried out by our research group).
We believe, however, that categories of therapist behaviors alone are unlikely to yield consistent results unless the meaning of such interventions for a particular patient is considered; interpretations may be helpful or harmful depending on their meaning to particular patients. For instance, a patient who was traumatized by an overly involved and intrusive parent could be hindered by frequent interpretations if they are experienced as intrusive.

Despite our use of a particular psychodynamic theory for assessing the suitability of interventions, (Sampson & Weiss, in press; Weiss et al., in press), our methods and procedures are transferable to a variety of conceptual frameworks. Within a psychodynamic approach, for instance, our method could be used to assess the extent to which an interpretation adequately addresses the patient’s core conflictual relationship theme (Luborsky, 1984). Similarly, investigators studying cognitive-behavioral therapies could develop case-specific scales that assess the extent to which a therapist’s behavior suits the patient’s particular problems. Our results strongly suggest that future research must go beyond assessing categories of interventions to incorporate a measure of suitability of interventions.

References


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