THE RELATIONSHIP BETWEEN MAIN ACTOR BEHAVIORS AND TREATMENT OUTCOME IN GROUP PSYCHOTHERAPY

Stephen Soldz
Simon Budman
Annette Demby
Harvard Community Health Plan

The therapeutic process of 89 members in time-limited group psychotherapy was investigated using a group modification of the Vanderbilt Psychotherapy Process Scale (GRP-VPPS) applied to the most focused on member, or Main Actor, in each 30-minute group segment. The means of each patient's GRP-VPPS scores during those segments in which he or she was Main Actor were subjected to Principal Component Analysis, resulting in three factors: Therapeutic Participation, Negative Reaction and Ease of Self-Expression. Exploration of the relation of process to outcome found that Therapeutic Participation was positively related to therapeutic benefit as judged by patients, therapists, and independent raters. Negative reaction was negatively related to change on two scales, while ease of self-expression was negatively related to improvement in self-esteem. For several outcome variables there was an interaction indicating that more resistant behavior was related to better outcome for patients who were main actor only a few times, whereas the relationship was reversed for more active patients.

A central theme in psychotherapy research has involved the exploration of dimensions of patient in-session behavior and its relationship to outcome (Greenberg & Pinsof, 1986; Soldz, 1990). While numerous researchers have examined these dimensions in individual therapy, there has been a paucity of studies of individual patient behavior in group therapy. Group theory (e.g., Yalom, 1985) postulates that the behavior of a patient in a psychotherapy group should be an important factor in that patient's outcome.

Because of the general complexity of doing process research studies in group therapy, investigators who have been interested in the area have generally chosen to study broad "group-as-a-whole" process measures, such as cohesion, rather than focusing on the behavior of individuals. In order for the field to advance on both a clinical and a theoretical level, it is important that we understand more fully the behaviors of individuals who make up the group and how such behaviors affect the

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Correspondence should be sent to Stephen Soldz, Mental Health Research Program, Harvard Community Health Plan, One Fenway Plaza, Boston, MA, 02215.
process and outcome of group therapy. This project is an initial attempt to modify and apply a frequently used individual therapy process measure—the Vanderbilt Psychotherapy Process Scale (VPPS) (Gomes-Schwartz, 1978; O’Malley, Suh, & Strupp, 1983; Suh, Strupp, & O’Malley, 1986) to the study of process in group treatment. By applying the VPPS we hoped to learn about how the interactions of individual members of the group affect their outcomes.

The VPPS is an instrument that has been used in a number of studies of patient process in individual therapy (Gomes-Schwartz, 1978; O’Malley et al., 1983; Suh et al., 1986). It consists of 80 items regarding patient and therapist behavior which are scored on seven scales. O’Malley et al. (1983) found that the Patient Involvement scale was consistently related to outcome, as measured by therapist, patient, and independent clinician ratings of overall improvement and improvement on target problems. The Exploratory Processes scale was related to improvement only from the perspective of the therapist. Windholz and Silberschatz (1988) also found patient involvement to be related to outcome from the perspective of the therapist, but not the patient or independent evaluator. In contrast, however, Rounsaville et al. (1987), using data from the interpersonal psychotherapy treatment subgroup of the Treatment of Depression Collaborative Research Program, found that the Patient Hostility scale was related to patient ratings of improvement, but found no other significant relationships of patient VPPS scales to outcome. The VPPS has thus shown itself to be a useful instrument in examining patient process in individual therapy.

Because the VPPS dimensions seemed to have potential relevance to group as well as individual therapy, we decided to apply the scale to individual patient behavior in the group setting. When one attempts to study patient behavior in group therapy, a new issue regarding the appropriate unit of analysis is raised. Patient behaviors can be explored at both individual patient level and at the level of the group as a whole. Group cohesiveness, for example, is best understood as a group-level phenomenon (Budman et al., 1989; Evans & Jarvis, 1980). In contrast, the dimensions of patient behavior represented in the VPPS appear to be individual characteristics, which may best be studied at the individual patient level.

Group therapy, in addition, generates new phenomena that are not present in individual therapy. For example, a group therapy patient can choose to become the focus of attention of the group, whereas no comparable choice confronts the individual therapy patient. The issue of how often a patient speaks and/or is focused on has many possible implications for process and outcome. In order to study such patient behavior, we decided to simplify our task by examining behaviors when the patient was focused on by other group members, that is, when they were the Main Actor in a segment of the group session. This concept of the main actor is an important one in that the main actor is likely to benefit from self-revelation, as well as the feedback of others. The degree to which a member is main actor is a measure of the participation of that individual.

The concept of main actor has been important in our prior research. A previous analysis of the present data set indicated that the number of times a group member was a main actor was positively related to pretreatment patient severity of disturbance, and to therapeutic benefit as rated by the patient and therapist, but not to

1The patient scales were Patient Participation, Patient Hostility, Patient Exploration, and Patient Psychic Distress. O’Malley et al. (1983) grouped the scales into three broader dimensions on the basis of theoretical considerations. Patient Involvement consisted of Patient Participation and Patient Hostility while Exploratory Processes combined Patient Exploration, Patient Psychic Distress, and Therapist Exploration. The third dimension, Therapist-Offered Relationship, contained only therapist items.
any of a number of other outcome measures (Soldz, Budman, Demby, & Feldstein, 1990).

The present study investigated several dimensions of main actor behavior in interactional group psychotherapy. It was hypothesized that these dimensions of main actor behavior would predict patient outcome. Three scales were derived from a group therapy adaptation of the VPPS. The relation of these scales to outcome and to patient pretherapy level of functioning was investigated. In addition, the interaction of these three scales with the number of times the patient was main actor (as a measure of patient activity) was explored in order to determine if process-outcome relationships differed for patients with varying activity levels.

METHODS

Patients. Subjects were 89 members of twelve 15-session psychotherapy groups at Harvard Community Health Plan (HCHP), the largest health maintenance organization in New England. Six of these groups were run as part of a randomized trial comparing the outcome of short-term individual and group psychotherapy (Budman et al., 1988). The groups in this study were run in accordance with a model for time-limited group therapy described extensively by Budman and Gurman (1988). According to this model, these groups should be focused on adult developmental issues. For the young adult groups being studied here, the central focus is on issues of intimacy and career development. It is one of the tasks of the leader to keep the focus on these issues, which are of concern for people in the young adult age range. These groups generally have between six and nine members, all of whom begin and end treatment together. The groups are highly interactional and do not make use of structured exercises, specific topics for a given session, and so on. Budman and Gurman (1988) describe the group tasks that arise during the various phases of such groups.

Six of these groups were videotaped as part of the comparative outcome study. An additional six groups were videotaped and included in the current study. Patients in these groups differed only in that they were assigned to group treatment through the usual referral mechanisms at HCHP, rather than through randomization. The two subsets of patients were not significantly different in terms of demographics or level of pathology.

Originally, there had been 13 groups, but one of the groups had an aberrant course. One of the patients in this group decompensated early in the treatment and the leader took a month-long vacation in the middle of the group. These experiences appeared to disrupt the group process so much that many of the sessions of this group were rated more than 4 standard deviations below the mean on the Harvard Community Health Plan Group Cohesiveness Scale, an observer-rated group process scale (Budman et al., 1989). Thus, this group was excluded from all analyses.

Patients were individuals (54 F, 35 M) between the ages of 21 and 35 (M = 27.9, SD = 3.5) who were not psychotic, borderline, suicidal, homicidal, or currently taking psychotropic medications. In general they were anxious or depressed young adults without serious psychopathology. The patients were primarily college graduates (87.8%) and 72.2% were single, with 20% married and 7.8% separated or divorced. Eighty-two percent of the patients had some previous therapy, though, in many cases this was just a few individual sessions preparatory to entering the group.

Therapists. Therapists were six Caucasian (3 M, 3 F) HCHP clinicians whose average age was 35 (range: 30–45). All of the therapists had previously led therapy
groups. Their theoretical orientation was basically eclectic, with a strong psychodynamic influence. Each therapist led two groups, except for one who led three.

Outcome Measures. A number of self-report measures were administered at the beginning of treatment. These included: (1) three patient-specified Target Problems, assessing the severity of the problems for which the patient sought treatment. From this measure, the severity of the first target problem was used for analyses (Battle, Imber, Hoehn-Saric, Stone, & Frank, 1966); (2) the Symptom Checklist 90, revised version, which is a 90-item measure of the severity of a broad range of psychiatric symptomatology in the previous week (SCL-90) (Derogatis, 1977); (3) the Cooper-Smith Self-Esteem Inventory, short form, modified for adults, a commonly used measure of self-esteem (Coopersmith, 1967); and (4) the UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978). Patient functioning was assessed by therapists after the third session, using the Global Adjustment Scale, a clinician rated measure of the patient's overall impairment of functioning due to psychopathology (GAS) (Endicott, Spitzer, Fleiss, & Cohen, 1976). Independent evaluators assessed patients with a semistructured interview before and after therapy and rated social functioning using a modified form of the Social Adjustment Scale, from which a global rating of social adjustment was derived (SAS) (Weissman & Paykel, 1974). All the above instruments were readministered at the end of treatment. In addition, at the end of therapy, the patients, therapists, and independent evaluators made global ratings of patient benefit from treatment (Patient Rated Benefit, Therapist Rated Benefit, and Independent Rater Benefit). The patient and therapist judgments were made on a 5-point Likert type scale, while the independent evaluator's rating was made on a 3-point scale. While we have no reliability data for these ratings, they were included because they closely resemble the types of judgment made by patients and therapists, and are measures commonly used in psychotherapy research. Thus the outcome battery consisted of seven Change Measures and three Benefit Measures. (Further information on the procedures and outcome measures used can be found in Budman et al., 1988.)

Main Actor Process Measures. In order to measure the behavior of the main actor in each group segment, the 21 items from the VPPS patient participation, patient exploration, and patient hostility factors (O'Malley et al., 1983) were slightly modified in wording (making references to the therapist refer to the group) so as to be applicable to group therapy, producing the Group VPPS (GRP-VPPS). The patient psychic distress factor was not used because it had not been related to outcome in any previous study. Each of the items was rated on a 5-point scale in terms of how characteristic it is of the main actor in that segment, from not at all to great deal.

Principal Component Analysis. The VPPS was originally designed for researching individual psychotherapy. Preliminary analyses indicated that the VPPS, as originally scored (Suh et al., 1986), did not manifest any significant relationships with outcome. Because the structure of therapeutic process in group could be quite different from that in individual psychotherapy, and because our sample size was larger than that in the original VPPS studies, we decided to perform a principal components analysis on the 21 GRP-VPPS items in order to reduce the number of scales. Varimax rotation with Kaiser normalization was used. The number of factors to be retained was determined by combining several criteria: the eigenvalue greater than one rule, insisting on a minimum of three items unique to a factor for retention, and interpretability of the resultant factors.

The principal components analysis resulted in a three-factor solution, explaining 53.9% of the variance. Scales were then constructed of those items loading higher than .50 on each factor. Only one item ("Talked about his/her feelings")
loaded on more than one factor; as the loadings were nearly equal, it was assigned to Scale 3 (Ease of Self-Expression) because of the fewer number of items on that scale. Table 1 gives the loadings of the items, as well as their placement on the Vanderbilt factors (O'Malley et al., 1983). As can be seen, Scale 1, Therapeutic Participation, appears to measure the extent and quality of the patient’s involvement in the group. It combines items from the VPPS Patient Participation and Patient Exploration factors. Scale 2, Negative Reaction, consists of a subset of the VPPS hostility factor. It appears to be related primarily to an inability to constructively respond to others in the group. Scale 3, Ease of Self-Expression, assesses the main actor’s spontaneous openness in expressing his/her feelings. This third scale consists of items from all three of the VPPS factors.

Rating Procedure. Each 90-minute session was broken up into smaller units that could be viewed by raters, without the latter becoming overwhelmed by the amount of material seen. Experimentation indicated that 30-minute segments were adequate for this purpose. The main actor was defined as the person whose issues were most focused on during each 30-minute videotape segment; in the rare case that no member was focused on, the Main Actor in a segment was the single most verbally active group member. The main actor was identified in each segment of all the group sessions by three undergraduates. There was 100% agreement for the 37 segments that were rated by two raters. In addition, for 50 segments, raters were asked to

Table 1. Items Loading on GRP-VPPS Scales

<table>
<thead>
<tr>
<th></th>
<th>Therapeutic Participation</th>
<th>Negative Reaction</th>
<th>Ease of Self-Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>(E)* How productive was this hour?</td>
<td>.62</td>
<td>.36</td>
<td>.22</td>
</tr>
<tr>
<td>(P) Actively participated in the interaction.</td>
<td>.69</td>
<td>.30</td>
<td>.23</td>
</tr>
<tr>
<td>(P) Took the initiative in bringing up the subjects that were talked about.</td>
<td>.85</td>
<td>.05</td>
<td>-.01*</td>
</tr>
<tr>
<td>(E) Seemed to be motivated for therapy.</td>
<td>.73</td>
<td>-.38</td>
<td>.16</td>
</tr>
<tr>
<td>(E) Concern was with how to deal more effectively with self and others.</td>
<td>.55</td>
<td>.00</td>
<td>.05</td>
</tr>
<tr>
<td>(E) Focused on a particular problem.</td>
<td>.87</td>
<td>.01</td>
<td>.05</td>
</tr>
<tr>
<td>(P) Was logical and organized in expressing thoughts and feelings.</td>
<td>.84</td>
<td>-.03</td>
<td>-.02</td>
</tr>
<tr>
<td>(E) Tried to understand the reasons behind problematic feelings or behavior.</td>
<td>.51</td>
<td>.06</td>
<td>.23</td>
</tr>
<tr>
<td>(P) Passive.</td>
<td>-.65</td>
<td>-.01</td>
<td>.09</td>
</tr>
<tr>
<td>(H) Reacted negatively to the others' comments.</td>
<td>-.11</td>
<td>.83</td>
<td>-.09</td>
</tr>
<tr>
<td>(H) Hostile.</td>
<td>-.06</td>
<td>.86</td>
<td>-.09</td>
</tr>
<tr>
<td>(H) Frustrated.</td>
<td>-.01</td>
<td>.88</td>
<td>.00</td>
</tr>
<tr>
<td>(H) Impatient.</td>
<td>-.01</td>
<td>.79</td>
<td>.08</td>
</tr>
<tr>
<td>(P) Seemed to trust others.</td>
<td>.25</td>
<td>-.25</td>
<td>.58</td>
</tr>
<tr>
<td>(E) Talked about his/her feelings.</td>
<td>.55</td>
<td>-.19</td>
<td>.52</td>
</tr>
<tr>
<td>(H) Intellectualizing.</td>
<td>.11</td>
<td>.31</td>
<td>-.70</td>
</tr>
<tr>
<td>(H) Defensive.</td>
<td>.08</td>
<td>.46</td>
<td>-.51</td>
</tr>
<tr>
<td>(P) Spontaneous.</td>
<td>.13</td>
<td>.04</td>
<td>.82</td>
</tr>
</tbody>
</table>

Percent of Variance Explained

24.3  17.6  12.0

*Letters in parentheses represent VPPS scale from which item originally came (O'Malley et al., 1983):
E = Patient Exploration; P = Patient Participation; H = Patient Hostility.

*a** indicates items scored negatively on scale.
MAINE ACTOR BEHAVIORS IN GROUP PSYCHOTHERAPY

indicate their confidence in their ratings; not once did they indicate even some uncertainty. Main actor ratings could thus be made with great reliability. The number of times a member was main actor ranged from 0 to 16 ($M = 6.07$).

Of course, not all group members attended all sessions. Yet it seemed most reasonable that the number of times a person was main actor was the best indicator of their exposure to therapeutic benefit available in the present study. We did repeat the following analyses with this variable prorated for the number of sessions attended and found that the pattern of results was very similar to those reported here. The correlation between the two measures was .83.

Raw material consisted of videotaped recordings of the 15 sessions of the therapy groups described above. Thirty-minute segments were presented to raters in random order. The raters were two psychiatric nurses who were experienced short-term group therapists. These raters had been trained by one of the developers of the VPPS and had previously applied the scale to videotapes of individual therapy. While it was not optimal to have the ratings performed by only one rater, practical limitations made it impossible to use multiple raters. In order to allow us to assess reliability, 29 segments were rated by both raters.

Main Actor Aggregation. Each GRP-VPPS item was averaged over all of the times that a subject was main actor to generate an average process rating for that item. These mean scores were used in all subsequent analyses.

RESULTS

Reliability of GRP-VPPS. Twenty-nine segments were rated by both raters. Scores on the three scales derived from the principal components analysis were calculated for each segment. Intraclass correlations measuring rater agreement were then computed. The results indicate that the scales have moderate (.65 for participation and .57 for ease of expression) to high (.91 for negative reaction) reliability at the segment level. These reliabilities are in the same range as those reported for the individual VPPS by Rounsaville et al. (1987), who obtained subscale reliabilities ranging from .56 to .83.

Relation of Process to Pretherapy Measures. The relations between the process variables and the pretherapy outcome battery were examined by means of Pearson correlations. No significant relationships were found for any of the GRP-VPPS scales.2

2There are several ways to analyze group therapy data. A central issue concerns whether to partial out group membership from other relationships. Partialing is clearly appropriate when conducting treatment comparison studies, as group membership is extraneous to the central issue of the relative effectiveness of the treatments (Crisp-Christoph & Minz, 1991). However, in the case of process-outcome analyses, the issue is much more complicated. If one group is composed primarily of very interpersonally sensitive members and mean group sensitivity is partialled out of the process-outcome analyses, then a good portion of the variance of interest is likely to be removed. Potential solutions would be to analyze the data using techniques that allow a comparison of the individual and group level effects (Taylor & Speake, 1989), or to test for cross-level interactions (Bedeian, Kemery, & Mosbolder, 1989; Boyd & Iversen, 1979). Such approaches are clearly desirable; they are, however, impossible to use when data like the present in which the number of groups is relatively small, as the group level effect cannot be accurately assessed with such few degrees of freedom. It is possible that this issue will not be resolvable until that (mythical) time when group therapy process studies involve considerably more groups than did the present study. With regard to the present data, we have repeated all analyses not involving interactions with group level partialled out producing broadly similar, but generally weaker results. However, we feel that not partialling out group membership produces the most interpretable findings and makes the most sense in terms of our clinical questions.
Table 2. Correlation of Patient Participation to Outcome

<table>
<thead>
<tr>
<th>Variable</th>
<th>Therapeutic Participation</th>
<th>Negative Reaction</th>
<th>Ease of Self-Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Rated Benefit</td>
<td>.27*</td>
<td>.00</td>
<td>.30*</td>
</tr>
<tr>
<td>Therapist Rated Benefit</td>
<td>.38**</td>
<td>.22*</td>
<td>.11</td>
</tr>
<tr>
<td>Independent Rater Benefit</td>
<td>.26*</td>
<td>.10</td>
<td>.19</td>
</tr>
<tr>
<td>GAS</td>
<td>.15</td>
<td>.24*</td>
<td>.05</td>
</tr>
<tr>
<td>Coopersmith Self-Esteem</td>
<td>.04</td>
<td>.10</td>
<td>.23*</td>
</tr>
<tr>
<td>SAS</td>
<td>-.08</td>
<td>.02</td>
<td>-.04</td>
</tr>
<tr>
<td>Severity of Target Problem</td>
<td>-.01</td>
<td>.00</td>
<td>.21</td>
</tr>
<tr>
<td>UCLA Loneliness</td>
<td>-.14</td>
<td>.02</td>
<td>.00</td>
</tr>
<tr>
<td>SCL-90</td>
<td>.03</td>
<td>-.28*</td>
<td>.02</td>
</tr>
</tbody>
</table>

Note: Correlations with benefit ratings are Pearson correlations. All others are partial correlations. All outcome measures are scored so that higher score indicates better functioning. GAS = Global Adjustment Scale. SCL-90 = Symptom Checklist 90—Revised. SAS = Social Adjustment Scale. All are as follows: Patient Rated Benefit = 73; Therapist Rated Benefit = 83; Independent Rater Benefit = 63; GAS = 73; Coopersmith Self-Esteem = 74; SAS = 80; Severity of Target Problem = 72; UCLA Loneliness = 60; SCL-90 = 71. *p < .05 **p < .01

Relation of Process to Outcome. In order to explore the relationship between the patient process variables and therapeutic change, partial correlations were calculated between the GRP-VPPS factors and each change measure (those measured both pre- and posttherapy), partialing out the pretherapy scores. For the Benefit Measures, Pearson correlations with each of the GRP-VPPS scales were calculated. These results can be found in Table 2. As is seen there, all of the process variables were significantly related to at least one of the Benefit Measures: ease of self-expression to benefit from the patient’s perspective, and therapeutic participation to benefit from all three perspectives. Negative reaction was negatively related to benefit from the perspective of the therapist.

Two of the process variables were related to the change measures. Negative reaction was negatively related to GAS and SCL-90. Somewhat surprisingly, ease of self-expression was negatively related to improvement on Coopersmith Self-Esteem.

Interaction of Number of Times Main Actor and GRP-VPPS. The above analyses of the relation of process to outcome used GRP-VPPS scores averaged over all the times the person was main actor. These averages can be conceptualized as measuring the mean quality of the patient’s participation in the group, ignoring the patient’s overall activity level (number of times main actor). It seemed likely that the quality and quantity of participation would interact in predicting outcome. This question was investigated separately for each GRP-VPPS scale by entering the product of the mean scale value and number of times main actor into a regression equation to predict each posttherapy measure after the pretherapy value (for change measures), the GRP-VPPS scale, and number of times main actor had already been entered. The significance of the change in $R^2$ for the product was then taken as indicating the significance of the interaction (Cohen & Cohen, 1983). Results of these analyses can be found in Table 3. Therapeutic participation and number of

3Due to missing data, and the fact that certain measures were not added until after the study had begun, the degrees of freedom differ for each outcome variable. Furthermore, in these and subsequent analyses, the signs of correlations have been arranged so that a positive sign indicates that a higher process score is related to better patient functioning.
### Table 3. Interaction of Number of Times Main Actor and GRP-VPPS Scales in Predicting Outcome

<table>
<thead>
<tr>
<th>Variable</th>
<th>Therapeutic Participation ($R^2$ Change)</th>
<th>Negative Reaction ($R^2$ Change)</th>
<th>Ease of Self-Expression ($R^2$ Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Rated Benefit</td>
<td>.06*</td>
<td>.00</td>
<td>.02</td>
</tr>
<tr>
<td>Therapist Rated Benefit</td>
<td>.02</td>
<td>.00</td>
<td>.03</td>
</tr>
<tr>
<td>Independent Rater Benefit</td>
<td>.03</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>GAS</td>
<td>.01</td>
<td>.05*</td>
<td>.06*</td>
</tr>
<tr>
<td>Coopermith Self-Esteem</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>SAS</td>
<td>.01</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Severity of Target Problem</td>
<td>.00</td>
<td>.00</td>
<td>.01</td>
</tr>
<tr>
<td>UCLA Loneliness</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>SCL-90</td>
<td>.01</td>
<td>.04*</td>
<td>.04*</td>
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</tbody>
</table>

*Note: Regression model with pretherapy variable (for Change Measures) Number of Times Main Actor and GRP-VPPS scale entered before interaction. GAS = Global Adjustment Scale. SCL-90 = Symptom Checklist 90—Revised. SAS = Social Adjustment Scale. df are as in Table 2.

*p < 0.05

times main actor interacted in predicting patient rated benefit. Both negative reaction and ease of self-expression interacted with number of times main actor in predicting GAS and SCL-90. These results indicate that the relation between GRP-VPPS and outcome differs for different levels of number of times main actor. Examination of the regression equations clarified the nature of this relationship. For all four significant interactions, a fewer number of times as main actor was associated with a positive relationship between resistant behaviors (low therapeutic participation and ease of self-expression and high negative reaction) and outcome, whereas a greater number of times as main actor was connected with a negative relationship between these behaviors and outcome.

### DISCUSSION

Several dimensions of main actor behavior in group psychotherapy were examined using three scales derived from the GRP-VPPS as process variables. The principal components analysis yielded three factors: therapeutic participation, negative reaction, and ease of self-expression.

The obtained reliabilities for these scales were adequate but not outstanding. They were in the range of those for studies that used the individual therapy version of the VPPS (Rounsaville et al., 1987). The somewhat low reliabilities reduce the power of our analyses. If resources had been available, it would have been desirable to have several raters rate each segment, thereby producing a more reliable composite score (Tsujimoto, Hamilton, & Berger, 1990). However, in studies such as the present one, where more than 450 half-hour segments were rated, such multiple rating is impractical.

Because of the multiple analyses that were performed in this study, one must be cautious in interpreting any particular finding. There were, however, a number of significant relations found between the process variables and therapeutic outcome that formed a consistent, interpretable, and clinically meaningful pattern. Therapeutic participation and ease of self-expression were significantly related to better outcome across all studies.
peutic participation was correlated with therapeutic benefit from the perspective of all three judges—patients, therapists, and independent interviewers. That is, patients who exhibited more initiative, motivation, and focus when main actor tended to derive greater benefit from the therapy, as judged by therapists, independent judges, and the patients themselves. Furthermore, therapeutic participation interacted with number of times main actor in predicting the patient benefit rating, suggesting a more complicated relationship for that variable, which will be discussed below. Therapeutic participation was not, however, related to change in any of the outcome variables that were administered both before and after therapy. Two interpretations of the discrepancy are possible. One interpretation is that direct ratings of benefit and residualized change on other dimensions represent different, relatively independent, dimensions of therapeutic change, as was found for individual therapy by Luborsky, Crits-Christoph, Mintz, and Auerbach (1988), and that Therapeutic Participation is related to the benefit, but not the change, dimension. The other interpretation is that the direct ratings of benefit are ratings of something other than therapeutic change. In fact, the present results suggest that benefit ratings may be influenced by the quantity and quality of the patient's participation in the group, confirming our earlier finding of a positive relationship between number of times main actor and patient and therapist rated benefits (Soldz et al., 1990). This line of reasoning easily explains the relationship between these process variables and therapist and patient benefit ratings. The relation of independent rater judgments to Therapeutic Participation is more difficult to explain. It may be that when patient behaviors contributing to therapeutic participation were manifest in the posttherapy interviews, the interviewers were inclined to conclude that the patient had benefited from treatment. Items on this scale, measuring initiative, focus, and organization in bringing up problems, would appear to support this explanation.

The relations of the other two process dimensions to outcome are more complex. Variables with direct linear relationships will be discussed before the interactions. Negative reaction was negatively related to therapist rated benefit, GAS, and SCL-90, but was unrelated to patient rated benefit. That is, patients with more negative reactions to the group while main actor were considered by therapists, but not patients, to have improved less and experienced less improvement in symptomatic distress.

In contrast, patients with greater ease of self-expression reported greater benefit, but also indicated that they declined in self-esteem. One way to understand this result is that patients who have a hard time talking about themselves in group feel that they have not benefited much, but, in fact, experience increases in self-esteem from having faced this difficulty.

A look at the interactions of the GRP-VPPS dimensions with the number of times main actor in predicting outcome provides further elucidation of the complicated process-outcome relationship in these groups. Therapeutic Participation exhibited an interaction in predicting patient rated benefit; negative reaction and ease of self-expression showed interactions with number of times main actor in predicting GAS and SCL-90. In every case, the interaction was such that more resistant behavior was connected with better outcome for patients who were main actor only a few times, whereas the direction of the relationship was reversed for patients who were main actor more frequently.

These interaction analyses suggest that the relationship between process and

*All following discussion of change in outcome presumes that these were adjusted for pretherapy level.
outcome depends on whether a person is the focus of the group often or only a few times. For those who are main actor only a few times, less focus, more defensiveness, and difficulty participating seem to be connected with better improvement. It is likely that patients who are main actor only a few times, with high negative reaction or low case of self-expression scores are shy people who find it difficult to reveal themselves in the group. By speaking out, they are engaging in difficult behaviors and experimenting with less socially desirable behaviors. The process of overcoming the inhibition to express difficult material, even if this expression does not occur frequently, may be therapeutic for these patients.

Those who are main actor a greater number of times, with the same high levels of resistant behaviors, are likely to be those whose resistance is a manifestation of habitual behaviors that did not substantially change over the course of these groups. It is unclear to what extent the differences in group process explored in this study represent habitual personality patterns that may be hard to modify in short-term groups, rather than behavioral styles that can be changed through appropriate therapeutic interventions.

Another issue that was not investigated in the present study is the possible interaction between group member process and the phase of the group. It seems likely that behaviors connected with therapeutic improvement vary depending on the stage of the group. Investigating these issues is an important topic for future research.

These results replicate for group therapy the general finding of O'Malley et al. (1983) that the VPPS is related to outcome, and that the most consistent relationships are between the VPPS dimensions and rated benefit scores. It should be noted, however, that the GRP-VPPS is insensitive to a major dimension of individual patient behavior in group therapy that has no analogue in individual therapy, namely, the nature of the patient's response to the other group members. Such responses need to be investigated, both when the target patient is a main actor responding to others' feedback, and when the target is responding to another main actor. Our group has recently developed a scale, the Individual Group Member Interpersonal Process Scale, for examining a variety of aspects of individual patient process of particular importance to group therapy. We hope that this new instrument will further clarify the nature of the individual patient process—outcome relationship in group treatment.

REFERENCES


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