Cohesion, Alliance and Outcome in Group Psychotherapy

Simon H. Budman, Stephen Soldz, Annette Demby, Michael Feldstein, Tamar Springer and Michael S. Davis

COHESIVENESS has been viewed as the group psychotherapy equivalent of the therapeutic alliance in individual treatment. Although researchers have attempted to study the concept of cohesion in group treatment, understanding of this so-called “curative” group factor remains quite primitive. In this study of 12 time-limited psychotherapy groups, with a total of 90 nonpsychotic outpatients, we explore the relationships between cohesion, alliance and treatment outcome. Our cohesion measure is a new instrument, the Harvard Community Health Plan Group Cohesiveness Scale, developed for use with group therapy videotapes. To measure alliance we have modified the Penn Helping Alliance Scale (Group Alliance Scale) to be scored from videotapes of group sessions. Both of these instruments use trained observers to make ratings for the group as a whole. The outcome battery for patients in these groups included a widely varied set of measures, enabling us to view change from a number of perspectives. Our findings indicate that cohesion and alliance as measured here are related concepts. We also find that both cohesion and alliance appear to have strong relationships with improved self-esteem and reduced symptomatology for patients in these groups. In addition, it appears that outcome is most related to cohesion in the first 30 minutes of a group session. Implications of these and other findings are discussed.

The concept of cohesion in group psychotherapy has been the subject of extensive clinical and theoretical discussion (Keller 1981; Yalom 1985) but minimal empirical examination (Kaufland, Ben-3988.

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cited as one of the pivotal determinants of effective group therapy, the research on it that has been undertaken is in many instances quite rudimentary and lacking in clinical depth and relevance.

This may in part be so because instruments to measure cohesion have been limited. Most research on cohesion in group psychotherapy has made use of self-report questionnaires based upon Frank's (1957) definition of the concept as "the attraction of a group for its members" (p. 54). Although this view of cohesion was operationalized by Gross (1957) in his Cohesiveness Scale (and subsequently modified by Yalom et al. [1967]) and then again by Stokes [1972] 30 years of use have added virtually no information about the scale's factor structure, psychometric properties or relationships with other process measures. The concept in the Gross scale also seems to be better described as "attraction-to-group" than as a measure of cohesion per se (Evans and Jarvis 1980).

Drescher et al. (1986) in an excellent review of cohesion research found that the vast majority of studies cited in the literature gauge cohesion with simple self-report questionnaires completed at only one time point (early in the group). Generally, it is the Gross scale or some modification of it that is used. This single-point, self-report strategy for measuring cohesion may be a useful starting point, but it fails to enhance the clinical and theoretical understanding of the concept in any fundamental way. It does not allow one to closely follow the evolution of cohesion over a single session or even the course of an entire group. When cohesion is measured in this way it is also not possible to gauge the impact of therapist or patient behaviors upon cohesiveness. Further, the ways in which the Gross and other self-report measures have been used in the past make cohesiveness appear to be a static concept devoid of those dynamic, interactional aspects that have made it most intriguing to clinicians and theoreticians.

Bloch and Crouch (1985), in their recent book reviewing the "curative factors" in group psychotherapy, argue that a more defensible term might be "putative therapeutic factors." They argue that the research linking these factors to outcome is minimal and that for the most part such factors have not been demonstrated to be therapeutic. Specifically, in regard to cohesion, they could locate only four studies focusing on its relationship with outcome (Kapp et al. 1964; Yalom et al. 1967; Weiss 1972; Roether and Peters 1972). Of these four studies, only two dealt exclusively with psychotherapy patients. The study by Yalom and his colleagues on group therapy outpatients' self-reports of cohesion and improvement found a positive relationship. On the other hand, the Roether and Peters study examining the relationship between cohesion and outcome in compulsory groups for sexual offenders found greater cohesion to be associated with increased likelihood of repeat offenses.

In a recent publication, Kaul and Bednar (1986) bemoaned the sad state of affairs in cohesion research:

"Despite their apparent utility in the practice of groupwork, however, cohesion and cohesiveness have been a spectacular embarrassment to group therapy and research. Over 30 years of effort has not enabled us to achieve an accepted definition of the terms. Literally hundreds of research attempts have made no demonstrable impact on our understanding of the concept. There is an intractability somewhere in the concept or in our approach to their comprehension." (p. 707)

In sharp contrast to the lack of clarity regarding the cohesion area in group psychotherapy, the comparable concept in individual therapy, alliance, has been a relatively well researched and durable predictor of outcome. A recent review of alliance research in individual psychotherapy (Luborsky and Auerbach 1985) found that the therapeutic alliance eclipsed even pre-treatment patient factors as a predictor of outcome.

The present research is based upon efforts over the last 8 years at the Harvard Community Health Plan in Boston to develop a clinically relevant, observer-rated
process measure of group cohesion. This measure, used by trained clinician/raters viewing videotapes, has been described extensively elsewhere (Budman et al. 1987; Budman and Gurman 1988). In preliminary research, we found that our scale, the Harvard Community Health Plan Group Cohesiveness Scale (Cohesion), was related to patients' ratings of overall benefit from short-term group therapy but not to therapists' ratings of benefit for the patients.

Our definition of cohesion is both broader and narrower than the now-standard "attraction-to-the-group" model. In our view, cohesion is the connectedness of the group, demonstrated by working together toward a common therapeutic goal, constructive engagement around common themes, and an open, trusting attitude which allows members to share personal material. Cohesion is important because it is what keeps members coming to the group; it is also what keeps members giving to one another under circumstances where, for periods of time, there may not be many clear or direct rewards for this kind of behavior except vicarious learning and the knowledge that they are helping others. Cohesion may also allow the members to sustain an involvement with the group, even in the face of strong or frightening emotionality, such as confrontation and hostility.

This definition is broader than the standard one. It encompasses a variety of aspects of this therapeutic variable and presents cohesion as a dynamic, rather than static, process. On the other hand, it is narrower than "group attraction." It is explicitly restricted to therapeutic groups, whereas the old definition could, in principle, apply to any group situation. Consistent with our notion of cohesion as a multifaceted concept, the Group Cohesiveness Scale has five bipolar subscales, and a global scale (see Methods section).

The research described here attempts to further elucidate the concept of cohesion as measured by the Group Cohesiveness Scale. In addition to studying the relationship between cohesion and outcome, using a relatively large sample of groups and patients and a varied and diverse set of outcome measures, we were also interested in examining how alliance and cohesion are related. Although cohesion has been viewed as the group equivalent of the therapeutic alliance (Yalom 1985), this question has not previously been empirically addressed.

METHODS

Groups

Our sample consisted of 12 time-limited (15 sessions) psychotherapy groups. Although the original study sample had consisted of 13 groups, one group was dropped from the analysis. This group underwent an extremely aberrant course, with one member becoming psychotic during the treatment. In addition, the therapist had to be away for a month, interfering with the group's continuity. During the first 6 weeks, four of nine members dropped out; by comparison, the other 12 groups had a total of only four dropouts during the same time period. Because of the nonrepresentative nature of this group's experience, we decided to exclude it from the current analyses.

The groups in this study were generally run in accordance with a model for such time-limited treatment developed by Budman and his colleagues (Budman et al. 1980; Budman and Bennett 1983; Budman and Gurman 1988). This approach, called an "adult developmental model" of time-limited group therapy, emphasizes the members' examination of common age-related themes, such as intimacy for young adults. Therapists are encouraged to be active and, generally, to maintain a here-and-now focus. The time-limited nature of the treatment and members' reactions to this limit are also explored.

Six therapists (three male and three female) were the leaders for the groups studied. Each led two groups, except for one who led three. The therapists were experienced at running short-term groups. Two
were psychiatrists, two were psychologists with PhDs, and two were psychiatric nurses.

Members of the study groups were a mixed-sex sample of 90 (54 female, 36 male) nonpsychotic young adults, between the ages of 21 and 35 (M = 27.9), who had sought therapy at the mental health department of a large health maintenance organization (HMO) in which they were enrolled. As the majority of patients seen at the HMO received such coverage through their employer, this was, for the most part, an employed population. Sixty-five (72.2%) were single, 18 (20%) married or cohabiting and 7 (7.8%) separated and divorced. Eighty-two percent of the sample had had at least some previous therapy.

Symptomatically, the group members tended to be depressed and/or anxious. Although none were taking antidepressant or antianxiety medications at the time of enrollment in the study, some had done so in the past. On the Global Scale of the SCL-90-R, a widely used measure of psychiatric symptomatology, the average for our population fell near the 50th percentile when compared to adult psychiatric outpatient norms (Derogatis 1977).

Patients were brief about the nature of the study. Those who agreed to participate were asked to sign informed consent material. At that point participants completed an extensive battery of outcome measures and interviews prior to joining the group. Immediately after the 15th session of their time-limited groups, members again completed the outcome battery and interviews. An attempt was made to videotape all of the therapy groups in their entirety.

Outcome Measures

The battery of outcome measures used in this study included self-report instruments, observer-rated scales and therapist ratings. The following scales were among those used: 1) patient-rated benefit; 2) therapist-rated benefit; 3) independent interviewer-rated benefit; 4) Cooper-smith Self-Esteem Inventory (Self-Esteem; Coopersmith 1967); 5) UCLA Loneliness Scale (Loneliness; Russell et al. 1978); 6) Global Assessment Scale (Global Assessment Scale; Endicott et al. 1976); 7) severity of the first target problem from the Battle Target Problem Measure (Target Problem Severity; Battle et al. 1966); 8) Social Adjustment Scale Global Score (Social Adjustment Scale; Weissman and Paykel 1974); 9) Global subscale of the Symptom Checklist-90-Revised (SCL-90; Derogatis 1977).

The Cohesion Measure

The Harvard Community Health Plan Group Cohesiveness Scale (Cohesion), a group therapy process scale rated by clinician/raters from videotapes, was developed over a 5-year period by a team of group therapy clinicians and researchers. Through an iterative process, we attempted to operationalize our concept of cohesiveness. Scales were developed and defined, piloted by raters and returned to the research team for modifications. The Cohesion consists of five subscales and a global scale. The five subscales are: 1) Withdrawal and Self-Absorption vs. Interest and Involvement; 2) Mistrust vs. Trust; 3) Disruption vs. Cooperation; 4) Abusiveness vs. Expressed Caring; 5) Unfocused vs. Focused. The Global Scale is called Fragmentation vs. Global Cohesiveness.

In judging Cohesion, raters are faced with the task of judging the functioning of the group as a whole, and not simply the individual participants. In cases where the behavior of one or a couple of members is inconsistent with that of the rest of the group, an implicit averaging process occurs. For example, a group with five members having an animated discussion while one member is looking bored and uninvolved will receive a somewhat lower Interest and Involvement rating than if the bored member was not present. Similarly, averaging over time was required in instances where the group process varied during an individual segment.

Each Group Cohesiveness subscale is
defined along a 10-point continuum from the negative pole at –5 to the positive at +5. The zero point is excluded. Each 90-minute group session tape was divided into 30-minute segments, which were viewed by raters in random order. Thirty-minute segments from different therapists, different sessions, and so on were all interspersed.

The Alliance Measure

The Penn Helping Alliance Rating Method (Alliance; Morgan et al. 1982) was modified for use with psychotherapy groups. Alliance was originally developed for measuring therapeutic alliance in individual psychotherapy. Morgan and her colleagues found highly acceptable intrater reliabilities for the 10 subscales of the Alliance rating method, with correlations in the .80 range. When relating process to outcome, these researchers report a correlation of .44 (p < .05) between Alliance ratings in early sessions and their major outcome measure (more vs. less patient improvement). Other researchers, such as Marziali et al. (1981), report comparable findings using related measures of alliance. Morgan et al. postulated two kinds of alliance: Type I, emphasizing the patient’s perceptions of the relationship; and Type II, measuring the ability of the participants in the treatment to work together toward a therapeutic goal.

In modifying the Helping Alliance scale for group, we defined Group Alliance in terms of the interrelationships of the group members, and the members’ experience of this relationship. That is, unlike individual therapy, where the relationship with the therapist is primary in gauging alliance, in group therapy alliance is a measure of the degree to which the members are able to work together constructively to further the therapeutic work. The raters were thus instructed to ignore, as much as possible, the contributions of and relationship with the therapist in rating Group Alliance.

Following the procedures recommended by Morgan, we combined the subscales of the Group Alliance scale to produce two alliance scores (Types I and II). That is, the mean of the items representing aspects of each of the two types were calculated and used as scores in our analyses. The subscale that measured patients’ statements regarding etiology was omitted because such statements were rarely made in our groups. In fact, we found that Type I and II Group Alliance scores were highly correlated (.90), reflecting recent experience of the Penn research team. Therefore, we have treated Group Alliance as a single summary score when examining its relationship with other variables in the study.

It should be noted that both the Group Cohesiveness and Group Alliance Scales tap two dimensions of group process, namely, bonding and working. Implicitly embedded in these scales is the concept of therapeutic work, combining both of these dimensions. For example, the full title of the “Disruption vs. Cooperation” subscale of the Group Cohesiveness Scale is “Evidence of disruption of therapeutic work versus evidence of cooperation toward a therapeutic goal.” No attempt was made to measure the bonding aspect of group process, as distinct from therapeutic work.

Raters

The clinician/raters for this study were two highly experienced psychiatric nurse practitioners at the Master’s level. Both had had extensive experience in leading psychotherapy groups. They had trained for about 40 hours on sample videotapes (not used in this study) until consistently high reliability was obtained. Intraclass correlations (R1) for these raters on 25 half-hour sample segments using the Group Cohesiveness Scale ranged between a high of .85 for focus to a low of .68 for trust. On the Alliance measure their reliabilities ranged from a subscale high of .87 to a low of .57. Periodic checks indicated that the raters maintained good reliability throughout the project with no noticeable “drift” over time.
Research Questions

The first question we were concerned with was the underlying dimensionality of the Group Cohesiveness Scale. We wished to find out if group cohesiveness, as measured by our scale, was unidimensional or multidimensional. We also wanted to examine the relationship of the Group Cohesiveness Scale to the Group Alliance Scale in order to see if these measures were tapping distinct aspects of group process.

The central question we wished to examine was the relationship of Group Alliance and the Group Cohesiveness Scale to therapeutic outcome and to patient pretreatment level of disturbance. It seemed likely that process during the early stage of the group would be more strongly related to pretreatment patient distress, while process later in the group would be more predictive of outcome; consequently, we divided the groups into two parts. The Early group consisted of sessions 1 to 7, while sessions 8 to 15 constituted the Late portion of the group. We thus used the Early and Late Cohesion and Alliance scores independently in our analyses.

In considering the nature of an individual group session we felt that during distinct segments of a session the group is faced with different tasks. The beginning segment of a session involves greetings, warming up and starting to work, while the final segment deals with the task of stopping and saying good bye. The middle segment of the session is largely dedicated to exploration of thoughts, feelings and problematic behaviors. We thus were interested in separately examining the relation of Group Cohesiveness and outcome for each of the three half-hours of a given session. We hoped that examination of these relationships would further our understanding of the clinical meaning of the relationship between cohesion and outcome in group psychotherapy.

Results

An important methodological issue in this study relates to the fact that we are attempting to associate an individual member's outcome with cohesion, which in our model is a group phenomenon. This research assumes that although different individuals within a group may experience the cohesion of that group in a unique manner, cohesion has a general impact on most members. It is our position, therefore, that, despite idiosyncratic differences that members may have in their experiences of cohesion in a given group, there is an overall response to the pervasive cohesion level. Therefore, in groups that are viewed as high on cohesion by raters using the Group Cohesiveness Scale, we would expect to have members who do better than the members of groups that are rated lower on cohesion. The research literature offers little guidance about whether it is more appropriate to analyze data in this kind of study on a group or on an individual level. In general, when possible, we have done both. Although the method of analysis does not appear to appreciably affect the results, the data in this paper are reported in the most "conservative" manner, i.e., on a group level.

In order to derive one or more summary scores from the Group Cohesiveness Scale, a Principal Component Analysis was performed. This analysis was carried out twice, once on the 21 half-hour segments constituting the first seven sessions (Early segments) and again on the 27 segments constituting the last eight sessions (Late segments). Both analyses generated only one factor with eigenvalue greater than one. Therefore, a summary Group Cohesiveness Scale score consisting of the mean of all six subscales was used in all subsequent analyses.

The relation of cohesiveness to outcome was examined for both the Early and Late portions of the groups. Thus, Group Cohesiveness Scale scores were averaged over all the Early or Late segments to produce two summary scores for each group: Early Cohesion and Late Cohesion. Group Alliance scores (Early Alliance and Late Alliance) were similarly generated by
summing Alliance-Sum over the Early or Late segments.

While the obvious way to assess change in psychotherapy would seem to be to derive a change score consisting of the pretherapy score on an outcome measure subtracted from the posttherapy score, difference scores are subject to several problems that make them inappropriate for measuring therapeutic change. Among these problems are reduced reliability and a built-in correlation with pretherapy level of disturbance. We therefore followed the advice of Cohen and Cohen (1975) and used residualized change scores as our measure of therapeutic effectiveness. Residualized change scores consist of the residuals that remain after the posttherapy score is regressed on the pretherapy score. Residualized change scores are thus uncorrelated with pretherapy disturbance level. For each outcome that had a pre- and posttherapy score, residual change scores were created. The relation between process and outcome was then assessed by means of a Pearson correlation between the process variable (Cohesion or Alliance) and the residualized change scores. In that no pretherapy scores exist for therapist, patient and independent rater assessments of patient benefit, these were correlated directly with the process variables.

Table 1 lists the correlations between the process variables and the outcome measures. (In order to enhance clarity, outcome measures that were not related to any process variable are excluded from this and subsequent tables.) As can be seen, Self-Esteem and SCL-90 were significantly related to all four process variables, while Loneliness was related to Late Alliance. In all cases, the direction of the correlation indicated that higher process scores were associated with greater improvement in patient functioning.

In order to explore the relationship between pretherapy patient functioning, and Group Cohesiveness and Group Alliance, the group mean for each pretherapy outcome measure was correlated with each process variable. As indicated in Table 2, two variables were significantly related to at least one of the Early process variables: Self-Esteem and SCL-90 were related to Early Alliance, while SCL-90 was also related to Early Cohesion. In each case the sign of the correlation means that better pretherapy patient functioning was related to higher process scores early in the groups. Somewhat surprisingly, pretherapy GAS was negatively correlated with Late Alliance, indicating that lower preggroup functioning on this measure was related to higher group process scores in the second half of the group.

Another set of analyses concerned the intercorrelations among the four process measures. These results are presented in Table 3. As can be seen, all possible pairs of the variables were significantly correlated. For Early and Late periods, the magnitude of the correlations between Cohesion and Alliance were .95 and .98, respectively. This indicates that these group-level scores of cohesiveness and alliance were very strongly related.

Finally, we attempted to do a fine-grained analysis, which might indicate whether cohesion level in a particular part of a therapy session was most strongly associated with outcome. In order to do this, we examined the relationships between outcome and cohesion in each 30-minute segment of the group (i.e., first 30-minutes, second 30-minutes, third 30-minutes) for Early (1-7) sessions and Late (8-15) sessions. Thus, we had six process variables that were correlated with residualized outcome change: 1) cohesion of first segments in early sessions; 2) cohesion of first segments in late sessions; 3) cohesion of second segments in early sessions; 4) cohesion of second segments in late sessions; 5) cohesion of third segments in early sessions; and, 6) cohesion of third segments in late sessions. As can be seen in Table 4, the segments that are most related to a variety of outcomes are first segments in late sessions. The cohesion of second and third segments seems to have a more moderate relationship with outcome.
Table 1

PEARSON CORRELATIONS BETWEEN COHESIVENESS, ALLIANCE AND OUTCOME

<table>
<thead>
<tr>
<th>Group</th>
<th>Cohesiveness Scale</th>
<th></th>
<th></th>
<th>Group</th>
<th>Alliance Scale</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Early</td>
<td>Late</td>
<td></td>
<td></td>
<td>Early</td>
<td>Late</td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>.48</td>
<td>.58</td>
<td></td>
<td></td>
<td>.48</td>
<td>.65</td>
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<tr>
<td>Self-Esteem</td>
<td>.63*</td>
<td>.76**</td>
<td></td>
<td></td>
<td>.65*</td>
<td>.76**</td>
<td></td>
</tr>
<tr>
<td>SCL-90</td>
<td>.65-</td>
<td>.66*</td>
<td></td>
<td></td>
<td>.62*</td>
<td>.58*</td>
<td></td>
</tr>
</tbody>
</table>

Note: Only outcome variables with at least one significant relationship with a process variable are included. DF for Loneliness is lower because this measure was added after the study began. DFs were as follows: Loneliness=8, Self-Esteem=10, SCL-90=10. Signs of correlations are adjusted so that a positive sign indicates higher process score is related to improved outcome.

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

Table 2

RELATION OF GROUP PROCESS VARIABLES TO PRETHERAPY PATIENT MEASURES

<table>
<thead>
<tr>
<th></th>
<th>Early Group Cohesiveness Scale</th>
<th>Late Group Cohesiveness Scale</th>
<th>Early Group Alliance Scale</th>
<th>Late Group Alliance Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Adjustment Scale</td>
<td>-.08</td>
<td>-.59</td>
<td>-.18</td>
<td>-.68*</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>.57</td>
<td>.51</td>
<td>.65*</td>
<td>.48</td>
</tr>
<tr>
<td>SCL-90</td>
<td>.59*</td>
<td>.51</td>
<td>.71**</td>
<td>.51</td>
</tr>
</tbody>
</table>

Note: Only outcome variables with at least one significant relationship with a process variable are included. Signs of correlations are adjusted so that a positive sign indicates higher process score is related to improved patient functioning. DFs were as follows: Global Adjustment Scale=9, Self-Esteem=10, SCL-90=10.

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

Table 3

INTERCORRELATION MATRIX OF GROUP PROCESS MEASURES

<table>
<thead>
<tr>
<th></th>
<th>Early Cohesiveness</th>
<th>Late Cohesiveness</th>
<th>Early Alliance</th>
<th>Late Alliance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Late Cohesiveness</td>
<td>.64*</td>
<td>.95***</td>
<td>.60*</td>
</tr>
<tr>
<td></td>
<td>Early Alliance</td>
<td>.65*</td>
<td>.98***</td>
<td>.63*</td>
</tr>
</tbody>
</table>

Note: DF for all analyses is 15.

*p < .05.
**p < .01.
***p < .001
Table 4
CORRELATION OF OUTCOME WITH COHESIVENESS FOR EACH 30-MINUTE SEGMENT OF EARLY AND LATE SESSIONS

<table>
<thead>
<tr>
<th></th>
<th>First Segment</th>
<th>First Segment</th>
<th>Second Segment</th>
<th>Second Segment</th>
<th>Third Segment</th>
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<td>Late</td>
<td>Early</td>
<td>Late</td>
<td>Early</td>
<td>Late</td>
</tr>
<tr>
<td>Loneliness</td>
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<td>.67*</td>
<td>.35</td>
<td>.27</td>
<td>.42</td>
<td>.54</td>
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<tr>
<td>Self-Esteem</td>
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<td>.71**</td>
<td>.43</td>
<td>.77**</td>
<td>.50</td>
<td>.55</td>
</tr>
<tr>
<td>SCL-90</td>
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<td>.80**</td>
<td>.32</td>
<td>.64*</td>
<td>.60*</td>
<td>.48</td>
</tr>
<tr>
<td>Patient-Rated Benefit</td>
<td>.52</td>
<td>.66*</td>
<td>.44</td>
<td>.46</td>
<td>.37</td>
<td>.52</td>
</tr>
</tbody>
</table>

Note: Only outcome variables with at least one significant relationship to a process variable are included. 

DFs for Loneliness is lower because this measure was added after the study began. DFs were as follows: Loneliness = 8, Self-Esteem = 10, SCL-90 = 10. Signs of correlations are adjusted so that a positive sign indicates higher process score is related to improved outcome.

*p < .05.

**p < .01.

DISCUSSION

There are a number of interesting and important findings in this study. First of all, contrary to our expectation that we would find cohesion to be a multidimensional concept, the data appear to point to a single dimension (or underlying factor). We also found that our measures of cohesion and alliance were very highly correlated.

Cohesion and alliance in a group were found to be related to the pretherapy level of symptomatic distress of the patients, and also to the degree of change on several outcome variables, most notably, Self-Esteem, and SCL-90. This relationship held whether the process variables were measured Early or Late in the course of the group. We also found that the process-outcome relationships were stronger when process was assessed during the first third of each session rather than for the later two thirds. These findings will be discussed, both from the perspective of issues raised for the measurement of group process and in terms of their possible clinical significance.

The finding that the Group Cohesiveness Scale exhibited only one factor suggests that most of the dimensions of cohesion, as measured by this instrument—e.g., trust, cooperation, interest, and so on—occur in concert most of the time. It is likely that the single factor which is being examined both by the Group Cohesiveness and Group Alliance Scales contains components of alliance and cohesion related to both bonding and working; no attempt was made in developing these scales to separate out these possibly distinct process components. Had we been explicit in differentiating bonding and working in these measures, it is possible that more than one factor may have emerged. After all, group therapy participants could be having a wonderful time and could appear cooperative, caring and trusting, while never addressing the hard work of group therapy, which involve disclosure, confrontation and insight.

It is Bordin’s (1979) belief that the three major spheres in which therapeutic alliance is most clearly expressed are: tasks, goals, and bonding. The task aspects of the alliance are linked to “the patient’s sense of his difficulties and his wish to change” (p. 254). The goals component relates to a shared agenda regarding the purposes of therapy. Bonding involves the quality of the human relationships between therapy participants. Bordin’s alliance tasks and goals appear to us to correspond to our concept of “working cohesion.” In future iterations of the
Group Cohesiveness Scale, it will be of use to differentiate between working and bonding cohesion in order to more fully understand their therapeutic functions, impact, and development. We have, indeed, begun to address this problem. In a recent revision of the Group Cohesiveness Scale, we have added a new subscale dimension called “Pure Bonding,” which excludes from consideration those aspects of cohesion related to the level of therapeutic work occurring in the group. Preliminary findings using this dimension indicate that it has a lower correlation with the other subscales of the Cohesion measure than they have with one another. If these findings are supported with a larger data set, this might indicate that working and bonding are the two underlying components of cohesion, and that it may be possible to tease them apart.

We were also struck by how closely related our observer-rated measures of cohesion and alliance appear to be. This could be because the raters who viewed each segment and then rated both the Cohesion and the Alliance measures might have developed a “set” regarding a given segment. The other possibility, of course, is that cohesion is indeed the group therapy equivalent of the therapeutic alliance in individual treatment. Conceptually, cohesion and alliance are very much related. As we indicated earlier, both are defined here as a function of the bonding and the work that occurs between participants. In order to truly clarify the relationship between cohesion and alliance, however, we will need to have different raters use each of the scales so that a possible “halo” effect is eliminated.

The central finding of this study is that cohesion, as rated by observers using the Cohesion measure (and the Alliance measure), shows a strong relationship with outcome as self-reported by patients. In particular, cohesion was related to improvement on self-esteem, as measured by the Self-Esteem scale, and on global symptomatology on the SCL-90.

While this finding is important and is supportive of our hypothesis that the cohesiveness of a group is related to the therapeutic benefit that its members accrue, we must note that only three of nine outcome measures showed a relationship with group process. While an overall multivariate test of the process-outcome relationship would be very desirable, such a test is precluded by the small number of degrees of freedom available when analyses are performed at the group level.

We believe, however, that the primary reason that the other outcome variables did not show a relationship with outcome is methodological, having to do with the nature of these measures. For example, examination of patients’ target problems has indicated that many of these problems were not formulated clearly and had little meaning to patients at the conclusion of treatment 4 months later. Similarly, the Social Adjustment Scale did not seem to meaningfully tap the problems experienced by our relatively high-functioning patient population.

Other process-outcome work by this research team has examined the activity of the main actor, or focal patient, in each group segment. This research has also shown that the strongest process-outcome relationships were found with the Self-Esteem and SCL-90 variables. This finding strengthens our conviction that these variables are especially useful for measuring outcome in these groups (Soldz et al. 1988). The finding that Self-Esteem was the variable with the strongest relationship to process is especially interesting because it is consistent with Frank’s (1957) view that cohesion is a major mediator of group members’ improved self-esteem. It is a finding that is also in line with Grunebaum and Solomon’s (1987) literature survey, indicating that peer relationships (as opposed to relationships with parents or authority figures) are central in the development of self-esteem in children. It may be that group therapy (in a highly cohesive group) is the treatment of choice for patients with moderate difficulties in the area of self-esteem.

Regarding our more fine-grained analysis of cohesion, the results may have im-
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Important practical relevance. These finer analyses should, however, be viewed with some caution and seen as exploratory until larger samples are obtained. It appears that the cohesion of a group therapy session in its first 30 minutes is especially predictive of patient outcome. Furthermore, this relationship seems particularly strong later in the course of treatment for the time-limited groups that were included in the study. This finding appears to indicate that it is the beginning of group therapy sessions (once the group has been going for several weeks) that most clearly differentiates groups that will benefit their members from groups that will not. Perhaps good groups have members who just "hit it off" with one another quickly and would be effective regardless of the therapist's interventions. It is also possible that good groups learn to "get into things" rapidly and do so at the start of each session after direction and structure from the therapist. Presumably, once groups have "warmed up" for part of the session, it becomes much more difficult to differentiate well-functioning and poorly functioning groups. Apparently, it is the rapidity of pulling together and working on a therapeutic task that is most indicative of the future outcome of the group.

This finding, although it must still be viewed as preliminary, may be of importance to the clinician and the supervisor of group therapy. In attempting to maximize patient gains from group treatment, special attention should be paid to the warm-up period at the beginning of each group meeting. If a group of patients who have been together for several weeks continues to have great difficulty at the beginning of each meeting pulling together and "getting down to business," the leader needs to think creatively about the possibilities for overcoming such tentativeness. Failing to do so may ultimately lead to poor outcome and dissatisfaction. Again, we must emphasize that the ultimate test of this and other findings described here must be replication in other studies.

Finally, although Early Cohesion and Early Alliance are predicted by SCL-90 and Self-Esteem, these variables (symptomatology and self-esteem) seem less predictive of late cohesion and/or alliance. Thus, the progress of the group may to some degree overcome limits presented by pretreatment patient characteristics, and these characteristics may have reduced influence over cohesion later in the group. In a somewhat paradoxical finding, therapist-rated GAS is negatively related to late cohesion and alliance. That is, "poorer" (more pathological) scores on the GAS were associated with higher levels of late cohesiveness and alliance. This finding is comprehensible when one looks at the nature of the GAS and the population being treated in this study. The GAS, a measure of overall patient functioning, has often been used with severely impaired patient populations. Therapists in this project rated patients on the GAS following session three of their groups. Since few participants were severely impaired in their daily functioning, more pathological GAS scores after the third session of the group may have been a proxy for higher levels of patient verbalization and openness regarding difficulties and concerns early in the group. In turn, by being more verbal and forthcoming about their difficulties the members were in a better position to get closer to one another and to become more cohesive as the group progressed.

In general, the findings regarding cohesion presented in this study appear quite interesting and enlightening. This variable, frequently described in the clinical literature as perhaps one of the core features in group therapy, may indeed be a central mediator of outcome. Using our measure, informed clinicians viewing the therapeutic process may be able to predict which groups will achieve good results for their members and which groups will fail. Further, if we are able to learn more about those therapist's behaviors that enhance cohesion, it may be possible to remediate circumstances in which a group's cohesion is following a negative trajectory.

It behooves researchers to examine this process variable more closely in other

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types of groups and in varied settings. Perhaps such examination will eventually lead to a fuller understanding of how clinicians may best develop cohesion in the groups that they lead and thereby improve the quality and outcome of group psychotherapy.

REFERENCES


