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AUTHOR Shipley, Robert H.  
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 AVAILABLE FROM Robert H. Shipley, Mid-Missouri Mental Health Center, Columbia, Missouri 65201

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ABSTRACT

Immediately before their second group therapy session, 10 newly formed inpatient therapy groups were randomly assigned to complete either collective or individual art projects. The members of a group in the collective-project condition completed a single art project as a group. Each member of a group assigned to the individual project condition completed an individual art project. In the therapy session which followed, groups in the collective-project condition showed a decrease in physical distance between group members relative to a baseline therapy session and relative to groups in the individual-project condition. These groups also scored higher on a questionnaire measure of cohesion. The questionnaire and intermember-distance measures of group cohesion correlated highly. Intermember distance returned to baseline during a follow-up therapy session. No differences were found during the therapy sessions in the frequency of three types of verbal behavior. It was concluded that collective art projects may be used to increase cohesion in ongoing therapy groups. Further exploration of intermember distance as a measure of group cohesion was suggested.  
 (Author)

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Effect of a Collective Project on Group Cohesion<sup>1</sup>

Robert H. Shipley<sup>2</sup>

Mid-Missouri Mental Health Center

Columbia, Missouri

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## Abstract

Immediately before their second group therapy session, ten newly formed inpatient therapy groups were randomly assigned to complete either collective or individual art projects. The members of a group in the collective-project condition completed a single art project as a group. Each member of a group assigned to the individual project condition completed an individual art project. In the therapy session which followed, groups in the collective-project condition showed a decrease in physical distance between group members relative to a baseline therapy session and relative to groups in the individual-project condition. These groups also scored higher on a questionnaire measure of cohesion. The questionnaire and intermember-distance measures of group cohesion correlated highly. Intermember distance returned to baseline during a follow-up therapy session. No differences were found during the therapy sessions in the frequency of three types of verbal behavior. It was concluded that collective art projects may be used to increase cohesion in ongoing therapy groups. Further exploration of intermember distance as a measure of group cohesion was suggested.

Effect of a Pregroup Collective Project on the  
Cohesiveness of Inpatient Therapy Groups

Group cohesion is generally recognized as an important contributor to progress in group therapy (Yalom, 1970). Lieberman, Yalom, and Miles (1973) found a significant correlation between score on a cohesion questionnaire and a composite patient-outcome score. Retrospective questionnaire studies have shown that patients tend to attribute positive personality change to group cohesion (Dickoff & Lakin, 1963; Knapp, Gleser, Brissenden, Emerson, Winget, & Kashdan, 1964).

While there have been attempts to create more cohesive groups through psychometric selection of group members with complimentary interpersonal characteristics (Schutz, 1966), few studies have explored ways of increasing cohesion once a group is formed. Lieberman et al. (1973) found that groups utilizing a relatively high amount of structured exercises were significantly more cohesive in both early and late group sessions than groups using fewer exercise experiences. Mumford (1974) found questionnaire (FIRO-B) evidence of increases in inclusion and affection behavior in a group which experienced structured exercises and verbal discussion relative to a group which engaged only in verbal discussion.

The purpose of the present study was to determine whether patients who work collectively on a creative art project evidence greater cohesiveness during subsequent group therapy sessions than patients who work individually on a similar project. Cohesion was multiply indexed by a questionnaire, ratings of verbal behavior during group therapy, and estimates of physical distance between group members.

### Method

#### Subjects

The "subjects" were ten newly formed therapy groups from Ward Two-South of the Mid-Missouri Mental Health Center. The groups began with 6-8 members (mean = 6.6) each. Attrition due to discharges from the hospital resulted in complete data for eight groups of five patients, one group of four patients, and one group of six patients. Each group was randomly assigned to either the collective-project or individual-project treatment condition. The patients in the collective-project and individual-project conditions were comparable in mean age (29 and 33, respectively), mean days hospitalized prior to the first group therapy session (18.0 and 19.5, respectively); and diagnosis of psychosis (6 and 7, respectively), neurosis (9 in each), personality disorder (3 and 4, respectively) and other diagnoses (6 in each).

#### Measures of Group Cohesion

Physical distance between group members. In general, the degree of positive feeling or friendliness between people is reflected in how close they stand or sit to each other (Evans & Howard, 1973). Translating this to the group setting, the mean distance between group members should reflect the degree of cohesiveness in the group. Since it is difficult to unobtrusively measure intermember distance in an ongoing therapy group, the present study employed distance estimates made by a trained observer from behind a two-way mirror. Group members were instructed by their therapists at the start of the first group session to arrange their chairs in a roughly circular pattern. Neither therapists nor patients knew

distance estimates were being made. In estimating the intermember distances, the observer used the body part closest to another group member (be it arm, hand, leg, etc.) as the reference point.

Cohesion questionnaire. A cohesion questionnaire was adapted for use with inpatient therapy groups from that used by Yalom, Houts, Zimerberg, and Rand (1967). It consisted of ten questions to be answered on a five point defined scale (e.g. "How well do you like the therapy group you are in?", "How long do you think your group sessions should be?").

Ratings of verbal behavior. Cohesive groups are more likely to enforce group norms than noncohesive groups (Schachter, 1951). The therapists of the groups participating in this study tended to place a value on self-disclosure of affectively laden material and on the provision of feedback to other group members regarding their behavior. If this value was accepted by the patients as a group norm, groups high in cohesion would be expected to engage in more personal discussion and feedback than groups lower in cohesion. To test this hypothesis, three trained observers used Bean's (1971) modification of the Whalen (1968) categories to classify the statements of each group member as either personal discussion, feedback, or other verbalization.

#### Procedure

Each week the ward staff routinely selected patients for inclusion in a time-limited group to meet for an hour on each of four consecutive days. Patients were selected who were not acutely psychotic and who the staff felt could benefit from group psychotherapy. Each week's therapy group incorporated those few members of the previous week's group who

had not been discharged from the hospital. Ten of these groups were selected over a period of time for inclusion in the experiment. Each week, after the ward staff had selected the patients for inclusion in group therapy, the experimenter determined whether there was patient overlap between this group and the last group selected for inclusion in the experiment. If there was no overlap, the group was included in the study. Since the group cotherapists (psychology interns, social workers, and psychiatric residents) changed every few weeks, spacing the experimental groups also insured a different set of therapists for each experimental group.

Once a group was selected for inclusion in the study and prior to its first therapy session, the experimenter and the chairman of the hospital Committee for the Protection of Human Subjects met with the group members. They were told that we were studying the effects of various hospital activities on group therapy and that their involvement would consist of completing a short questionnaire and allowing ratings to be made from behind a two-way mirror (this information was also the extent of the group therapists' knowledge of the research). Prospective subjects were also told the study would not affect their medication, length of hospital stay, etc. They were then asked to sign a consent form. Only one patient chose not to participate in the study.

During the first group session, estimates of intermember distance and ratings of verbal behavior were completed by three observers stationed behind a two-way mirror. The distance estimates were made between the fifth and tenth minutes of the session. The ratings of verbal behavior

were made for a 40-minute period beginning ten minutes after the start of the group session.

On the second group-therapy day, the group was randomly assigned to either the individual-project or collective-project treatment condition. Regardless of treatment condition, group members went to occupational therapy 50 minutes prior to their second group-therapy session. If the group was assigned to the collective-project condition, the patients were all seated at a long table located in the center of the room. Various magazines and half the number of scissors as patients were located in the center of the table. If the group was assigned to the individual-project condition, the patients were seated facing the wall at the ends of several tables which were widely spaced around the room. Magazines and scissors were located in front of each patient. Regardless of treatment condition, the patients were told that they would be participating in an exercise in expression of feelings. Each person was to find at least one picture, word, or phrase to illustrate (1) "how you feel right now" (patients were encouraged to close their eyes and get in touch with their feelings) and (2) "how you would like to feel when you leave the hospital." At the end of 15-20 minutes, the table(s) were cleared except for the cutouts which each patient had chosen as representative of his feelings.

During the second phase of the exercise, the patient group was again treated differentially depending on treatment condition. In the collective-project condition, the group was given one large (25" x 19") piece of paper and half as many bottles of glue as there were patients. They were

instructed to make a collage to be placed on the ward bulletin board. It was stressed that how the items were placed on the paper was to be determined by the group. Patients frequently asked if they could discuss their pictures and they were encouraged to do so. Someone from the group usually volunteered to put the completed collage on the ward bulletin board.

Patients in a group assigned to the individual-task condition were each given a 12" x 19" piece of paper and a bottle of glue. The instructions were that each patient should make a poster collage. The patients were encouraged to keep the completed posters.

Ratings of intermember distance and verbal behavior were completed during the second and third group-therapy sessions just as they had been during the first session. In addition, immediately following the second therapy session, patients were asked to complete the (unlabeled) cohesion questionnaire.

### Results

All analyses used the unweighted means of the therapy groups as the unit of analysis rather than the individual patient data. This conservative procedure is preferable since groups rather than patients were randomly assigned to treatment conditions and because the interest is in finding the effect of the experimental manipulation on therapy groups rather than on individuals (Lindquist, 1953, p. 172).

The group observer trained in the estimation of distance between group members performed this function with a high degree of reliability. In ten mock therapy groups set up at the end of the study to approximate distances actually observed in the experimental groups, the estimates showed a Pearson product-moment correlation of .98,  $p < .0001$ , with actual mean

intermember distance. The effect of participation in an individual or a collective project on mean intermember distance is shown graphically in Figure 1.

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Insert Figure 1 about here

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A two-factor mixed analysis of variance of the intermember distance data revealed a significant interaction between treatment condition and session number,  $F(2, 16) = 5.00, p < .02$ . Simple effects tests (Weiner, 1971, p. 529) revealed a significant treatment effect at session two, which immediately followed the treatment manipulations,  $F(1, 14) = 5.54, p < .05$ . The treatment conditions were comparable at baseline session one ( $F < 1$ ) and at follow-up session three ( $F < 1$ ). A significant effect of group session was found in the collective-project condition,  $F(2, 16) = 4.00, p < .05$ , but not in the individual-project condition,  $F(2, 16) = 2.41, p > .10$ . A one-way analysis of variance revealed a similar effect on the cohesiveness questionnaire administered at the end of session two. Groups in the collective-project condition obtained a higher cohesion score (mean = 38.17) than did groups in the individual-project condition (mean = 34.00),  $F(1, 8) = 11.42, p < .01$ .

The observers coded verbal behavior during the group sessions with a high degree of inter-rater reliability. Pairwise product-moment correlations calculated from ten patients rated by all three observers ranged from .97 to .98 for personal discussion, from .83 to .91 for feedback, and from .93 to .96 for other verbalization (all  $p$ 's  $< .005$ ). A mixed

analysis of variance on each of these categories failed to reveal any statistically significant differences.

Some interesting correlations were found between the measures of group cohesiveness. Intermember distance at the start of session two was significantly correlated with scores on the cohesion questionnaire completed at the conclusion of session two ( $r = -.72, p < .02$ ). This finding supports the idea that the cohesion questionnaire and intermember distance largely reflect the same phenomenon. Neither intermember distance nor questionnaire-measured cohesion was related significantly to frequency of personal discussion ( $r = .08$  and  $.17$ , respectively) or of other verbalizations ( $r = .03$  and  $.43, p > .10$ , respectively). Frequency of feedback was negatively related to group cohesion as measured by questionnaire ( $r = -.71, p < .05$ ) and intermember distance ( $r = .51, p > .10$ ), though the latter did not reach statistical significance.

#### Discussion

The results support the idea of using collective art projects to enhance cohesiveness in inpatient therapy groups. The members of therapy groups which worked collectively on an art project just prior to a therapy session sat closer to each other than they had during the previous day's therapy session. They also sat closer together and scored higher on a cohesiveness questionnaire than groups whose members had completed similar art projects individually. This finding suggests that the act of working together on a creative project, rather than the specific content of the project, was the active treatment ingredient. Thus,

collective projects may prove effective in increasing group cohesion regardless of the specific content of the project utilized.

The treatment manipulations did not increase the frequency of personal discussion and feedback within the therapy groups. If we accept that cohesive groups are likely to enforce group norms (Schachter, 1951), this finding suggests that the groups did not value high levels of personal discussion and feedback. This interpretation is supported by the finding that frequency of feedback within a group correlated negatively with questionnaire-measured cohesion. Interestingly, recent findings by Lieberman et al. (1973) call into serious question the long-held belief that feedback is of central importance in successful treatment outcome. Their study does uphold the importance of group cohesion.

The present study supports the use of intermember distance estimates as a measure of group cohesion. A trained observer was able to reliably estimate intermember distance in therapy groups and these estimates correlated highly with questionnaire-measured cohesion. Estimates of distance between group members has a certain intuitive and simplistic appeal as a measure of group cohesion. It could be useful as a concrete and unobtrusive measure of moment-to-moment changes in the cohesion of ongoing groups.

Further research is needed to determine the permanence of changes in cohesiveness resulting from collective projects. In the present study the changes in intermember distance, observed in the groups soon after completion of a collective project, did not maintain the following day. Perhaps collective projects on each of several days would facilitate

maintenance of the changes. Additional research is also needed to determine what types of collective projects facilitate cohesion and to extend the findings to different population groups.

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Footnotes

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<sup>2</sup>Requests for reprints should be sent to Robert H. Shipley, Mid-Missouri Mental Health Center, Columbia, Missouri 65201.

Figure Caption

Figure 1. Mean distance between group members during three group therapy sessions as a function of participation in collective or individual projects.

