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Comparison of Outcome between Homogeneous and Heterogeneous Treatment Environments in Combat-Related Posttraumatic Stress Disorder

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This study compared treatment outcome at discharge, and 4, 8, and 12 month follow-up between an inpatient program consisting of a mixture of Vietnam combat veterans with posttraumatic stress disorder (PTSD) and general psychiatric patients (N = 42), and the same program at a later period, consisting of only Vietnam combat veterans with PTSD (N = 33). Veterans rated the homogeneous environment higher in satisfaction, support, order, clarity, and amount of discussion of combat, and lower in hostility, than the heterogeneous condition. However, veterans showed no improvement in condition at 12 month follow-up, with the exception of decreased violence, replicating earlier studies. No differences in outcome were found between homogeneous or heterogeneous treatment environments. This study underscores the enduring nature of chronic posttraumatic stress disorder in the veteran population.
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Recent reports of treatment outcome from specialized inpatient programs for combat-related posttraumatic stress disorder (PTSD) have indicated some improvement at discharge but either no gain or even some exacerbation of symptoms at follow-up (Fontana and Rosenheck, 1996; Hammarberg and Silver, 1994; Johnson et al., 1996). Due to the potential significance of such results for health care of veterans suffering from PTSD, replication of these studies is critical. In one recent study conducted by the authors (Johnson et al., 1996), the program under study was housed on a larger unit that included general psychiatric patients. It is possible that the poor outcome of this program was influenced by the absence of a homogeneous treatment environment, that is, a unit devoted entirely to the treatment of veterans with PTSD. This study is an attempt to replicate and extend the results of the previous study by examining outcome from both homogeneous and heterogeneous treatment environments.

Within group and milieu therapy approaches to the treatment of PTSD, the degree of heterogeneity within the treatment environment is assumed to be a critical therapeutic factor. Heterogeneity may be defined as the aggregate of differences in member characteristics, including trauma-related variables such as type or amount of traumatic stressor, demographic variables such as social status, military rank, age, race, and gender, and functional variables such as type of symptomatology or level of functioning. Presumably greater homogeneity among members may result in greater cohesion and openness in the group, whereas greater heterogeneity among members will provide more opportunities for new learning and multiple perspectives (Yalom, 1975).

A consensus appears to exist among both scholars and clinicians that the treatment of posttraumatic stress disorder should begin in a highly homogeneous treatment environment, in which patients experience the safety and security afforded by exposure to others who have had highly similar experiences (Bloom, 1994; Herman, 1992; Marmar et al., 1993; Parson, 1985; Scurfield, 1993). Feelings of isolation, mistrust, and shame among trauma victims may be more readily overcome in the early stages of treatment within homogeneous environments (Parson, 1985). Learning that one is not alone or crazy, a therapeutic factor Yalom (1975) has labeled universality, appears to be of prime importance. Significant differences in experience among members place too great a strain on individual members' capacities for accommodation and may lead to a high dropout rate (Parson, 1985). Scurfield (1993), referring specifically to combat-related trauma, notes that homogeneous groups are necessary because trauma survivors are inherently suspicious of nontrauma survivors. Homogeneity helps keep the

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focus on the trauma, encourages more detailed recall, authorizes the feedback provided by other group members, and minimizes the "we-they" split that often cripples the treatment group.

Despite these advantages, several authors have described negative aspects of highly homogeneous treatment environments. Patients may become attached to their identities as victims, delaying their adaptation to the normal world (Brende, 1983; van der Kolk, 1987). Collusive group interactions may occur to protect individual members from being singled out, preventing members from taking responsibility or acknowledging certain realities. An environment consisting of similarly victimized patients may become too insular, unintentionally increasing the alienation of the patients from their families and society at large (Johnson et al., 1994; van der Kolk, 1987). Helping victims differentiate their own experiences from others without feeling intense shame or fear may be more likely to occur in heterogeneous environments.

In view of these considerations, a number of authors have proposed treatment models that progress from homogeneous to heterogeneous stages. Herman (1992) proposes a three-stage model of safety, remembrance/mourning, and reconnection. She recommends individual work in the first stage, homogeneous groups in the second stage, and heterogeneous groups in the third stage. Another model aims to gradually increase members' psychological differentiation and individuation, in which differences among group members are increasingly identified and explored (Parson, 1985). Johnson et al. (1994) have identified first and second generation models for inpatient PTSD treatment, characterized by homogeneity and heterogeneity, respectively. First generation programs are sanctuarial environments highly responsive to veterans' expressed needs, whereas second generation programs encourage transactions across various societal and family boundaries, deemphasizing the bonding among veterans.

The Department of Veterans Affairs has established approximately 50 specialized inpatient units to treat combat-related PTSD, largely though not exclusively for Vietnam veterans. Approximately 75% of these units are free standing units that admit only PTSD patients, and 25% are programs within larger psychiatric units that also admit other patients. Decisions to place these programs on larger units are usually based on efforts to maximize the efficient use of resources, since both the veterans' preferences and the VA guidelines for these programs recommend free standing units (Department of Veterans Affairs, 1989). Nevertheless, the relative value of each approach has not been determined, or whether veterans who have already received substantial first generation programs in homogeneous environments could benefit from the more heterogeneous second generation programs that purposely attempt to work on their interpersonal problems with non-traumatized people (such as their families, employers, therapists).

Empirical study of the relative quality and effectiveness of treatment environments that vary along the homogeneity-heterogeneity dimension is made difficult by the fact that this dimension is only one of many factors that differentiate programs from one another. However, an initial exploration of this question was made possible at our setting due to a change in our program from a heterogeneous to a homogeneous environment, without other substantive changes in program content or staffing. The following report examines the effects of homogeneity and heterogeneity of patient population on treatment outcome in combat-related PTSD, within the larger context of replication of our previous study (Johnson et al., 1996).

Methods

Setting

This study was conducted on a multidisciplinary, specialized inpatient treatment program for Vietnam veterans. In all phases of this study, veterans were admitted in cohorts for the 15-week structured program. Rigorous screening procedures were employed before admission to identify veterans with PTSD, based on DSM-III-R criteria, through clinical interviews and review of medical records. Combat experience was confirmed by review of military files. Generally, veterans were required to have achieved a degree of stability in both their symptoms (*e.g.*, no suicidal ideation for 60 days, sobriety for 90 days), social functioning (*e.g.*, established living arrangement, family involvement in program), and outpatient treatment before admission. Because the program was oversubscribed, veterans waited 4 months on average before being admitted. Written informed consent was obtained from each patient after all the procedures were fully explained. All procedures were approved by the hospital human investigation committee. Upon admission, most patients were removed from medications to assess their baseline clinical state and then to participate in a number of neuropsychiatric, psychophysiological, and psychological studies. With few exceptions, their symptoms had had no or only partial response to medication. At the conclusion of the program,

most had been placed back on a medication regime as determined by their attending psychiatrist.

The treatment program aimed to facilitate the reintegration of the Vietnam veteran back into society rather than focusing on an intensive exploration of his Vietnam experience (Johnson et al., 1994). The program consisted of three phases. The first phase prepared the veteran to examine his traumatic experiences through relaxation, sleep, and anger management training, and allowed the staff to conduct a fairly extensive review of his life and illness. Creative arts therapies were used to increase his expressiveness and comfort with emotion. The second phase focused on review of the traumas in both group and individual therapy and then employment of cognitive restructuring techniques to alter the veteran's attitudes toward them. The third phase focused on engagement with the community, family therapy, and planning for the future. Volunteer service in community agencies as well as family meetings provided opportunities for the veteran to develop and expand his relationships with people other than his veteran cohort. During each week patients attended approximately 32 hours of mandatory groups and several hours of individual therapy, conducted within a tightly structured schedule. The unit was characterized by high morale, low staff turnover and burnout, and an absence of disruptive behavior such as acts of violence or disorganization.

Structure

Initially, the PTSD program consisted of 14 cohort patients, and the remainder of the unit (13 beds) consisted of a 10-bed dual diagnosis program for personality disordered veterans with substance abuse and three beds for general psychiatric patients (including some PTSD patients who did not participate in the SIPU). The dual diagnosis program was also highly structured, with psychoeducational lectures, special groups, and ceremonies. Homogeneity was preserved in approximately half of the patients' structured meetings, in which PTSD cohort and dual diagnosis met separately. Heterogeneous, combined meetings (*e.g.*, community meeting, creative arts therapies, psychoeducational lectures) intentionally focused on the differences and similarities among veterans, and the resolution of unit-wide interpersonal tensions.

In July 1992, a patient admitted to a general psychiatric bed on the unit was discharged and later that day found dead from an overdose of heroin. He was a Vietnam veteran with a history of polysubstance abuse, particularly opiates; PTSD; and depression. Several internal and external panels reviewed the program over the next 3 months, and in October three program changes were announced. First, the unit would admit only veterans with PTSD, and dual diagnosis and general psychiatric patients would be treated on other units in the hospital. Second, patients requiring physical restraints would not be admitted to, or allowed to remain on, the unit. Third, the program would consist of two overlapping cohorts of eight patients each (rolling cohort design) instead of one cohort of 14. The other 11 beds on the unit would become an evaluation and brief treatment program for PTSD patients. No changes were made in the content, length, or staffing of the program. All of the dual diagnosis patients were discharged by December, and in January the first of the rolling cohorts of eight patients was admitted. Two PTSD cohorts were affected by the transition period.

This event provided us with a unique opportunity to study the effect of the above changes on treatment outcome. By comparing the data from cohorts treated before the event with those treated after the event, the effects of decreased heterogeneity on treatment environment and outcome could be estimated.

Study Questions

This study intends to examine the following three questions: a) What was the outcome for the entire sample at 12 month follow-up? b) Were there significant differences in the perceived social climates of the homogeneous and heterogeneous treatment environments? c) Was there a difference in outcome between those veterans treated in the homogeneous versus the heterogeneous environments?

Subjects

Two comparison groups were created: HETEROG, subjects who completed the heterogeneous treatment program during the year prior to July 1992 ($N = 33$), and HOMOG, subjects who completed the revised, homogeneous program during the year after the transition phase ($N = 42$). Thirteen subjects who participated in the two cohorts during the crisis period were not included in the analyses, due to the inability to interpret their results.

A total of 75 subjects are included in the study sample. All are Vietnam combat veterans who fulfilled the admission criteria of the unit and who completed the program. Seven additional veterans had dropped out or were expelled from the program, all within the first three weeks (3 in the HETEROG and 4 in the HOMOG groups). The sample had a mean age of 44.1 (SD = 2.1) and 12.8 years

of education (SD = 2.2), and was 82% Caucasian, 45% married, and 31% employed. Nearly half received service-connected disability payments. There were no significant differences on these demographic variables among the two comparison groups. The entire sample is distinct from the sample studied in the previous report (Johnson et al., 1996).

Measures

Treatment Outcome Measures. The War Stress Interview (Fontana et al., 1993) is a 2-hour structured clinical interview, consisting of a battery of established scales relevant to the study of PTSD and combat-related trauma. Among the standard interviews and scales incorporated into the War Stress Interview are the Mississippi Scale for PTSD (Keane et al., 1988), the Structured Clinical Interview for Diagnosis for PTSD (Spitzer and Williams, 1985), the Revised Addiction Severity Index (McLellan et al., 1985), the Combat Exposure Scale (Keane et al., 1989), the Brief Symptom Inventory (Derogatis and Melisaratos, 1983), the Laufer-Parson Guilt Inventory (Laufer and Frey-Wouters, 1988), and measures of violent behavior and ideation (*e.g.*, criminal charges, destruction of property, domestic violence, desires to hurt others; Kulka et al., 1988), contact with intimates and participation in social activities (Katz and Lyerly, 1963); and prior use of VA and non-VA treatment services and satisfaction with those services.

Assessments were conducted by research assistants not associated with the clinical program, and occurred within 1 week of admission, at discharge (4 months later), and at 4, 8, and 12 months after discharge. Based on previous studies, it was predicted that the sample as a whole would show improvement on outcome measures at discharge but return to baseline levels at 12 month follow-up. Further, in the contrast between the two program types, the homogeneous program should show better outcome than the heterogeneous program, due to the predicted higher levels of cohesion, involvement, and support in the perceived social climate.

Treatment Environment Measures. Change in treatment environment was measured by the PTSD Program Environment Scale (Fontana et al., 1993), which is an expanded form of the Moos Community Oriented Program Environment Scale, consisting of 110 True-False questions that assess patients' perceptions of their inpatient unit (Moos, 1973). This scale has been widely used in assessment of treatment program environments, as the subscales are highly internally consistent and show good test-retest reliabilities. The scale consists of 10 factors organized into three dimensions: the relationship dimension subscales of involvement, support, and spontaneity assess the patients' investment in the program, and the type and intensity of relationships among patients, and between them and the staff. The treatment program dimension subscales of autonomy, practical problem orientation, personal problem orientation, and anger expression attempt to measure the patients' perceptions of the orientation and philosophy of the program. Anger is further divided into therapeutic anger, reflecting positive aspects of expressing feelings, and hostile anger, reflecting negative, threatening behaviors. The systems maintenance dimension subscales of order, clarity, and staff control assess the patients' perceptions of the degree to which the ward is organized and controlled. In addition, Fontana et al. (1993) have added a dimension specific to PTSD programs, labeled combat discussion, based on the items in the personal problem orientation subscale, which assesses the degree to which staff and patients openly discuss combat experiences (alpha = .85). The revised scale has been administered as part of the DVA survey of 19 specialized inpatient PTSD programs, and had been administered in this program from 1989 to the present. The questionnaire was administered in the 12th week of each cohort program.

Based on clinical observations of greater cohesion in homogeneous environments, it is hypothesized that values of involvement, support, spontaneity, order, and clarity will rise from HETEROG to HOMOG, and that anger and staff control will decrease. The treatment program dimensions of autonomy and personal and practical problem orientation should not show significant changes because they reflect programmatic emphases that did not change. In addition, it is also hypothesized that combat discussion will increase in a homogeneous environment consisting of more combat veterans.

Subjective Measures of Benefit. Patient and staff ratings of overall benefit from the program were made at discharge on a 5-point Likert scale (1 = very unhelpful to 5 = very helpful). It is hypothesized that due to predicted greater cohesion and patient satisfaction in the homogeneous condition, veterans' ratings of benefit will be greater in the HOMOG than the HETEROG cohorts.

Data Analysis

Treatment outcome data were analyzed using random regression modeling for use with missing data for repeated measurements (Gibbons et al., 1993).

The analytic strategy consisted of assessing differences both during treatment (admission to discharge), as well as the overall change from admission to 12-month follow-up. These analyses were first performed on the whole sample, and then on the two subsamples (HETEROG and HOMOG). The random regression approach uses the available data from each individual, augmented by data from all other individuals, to estimate the trend line across all time-points for each individual. In this way, the maximum amount of information in the data set is used in the analyses, avoiding distortion due to selective dropping of cases or time-points. We have adopted the approach developed by Jennrich and Schluchter (1986) for modeling missing data for repeated measures utilizing structured covariance matrices. The software employed in this study was the 5V program of the BMDP statistical package (Schluchter, 1988).

Analysis of the PPES and benefit measures consisted of *t*-tests between the two groups (HETEROG and HOMOG), corrected for multiple comparisons by the Bonferroni method.

Results

Overall Outcome

In the sample as a whole, previous results were replicated: gains made by discharge are not sustained at 1 year follow-up (see Table 1). The veterans in this sample showed significant improvements at discharge in ASI psychiatric symptoms ($F = 29.14$, $df = 1, 68$, $p < .001$), medical problems ($F = 17.49$, $df = 1, 68$, $p < .001$), and violence ($F = 9.57$, $df = 1, 68$, $p < .05$). However, no significant changes were evident in PTSD symptoms, guilt, alcohol and drug problems, and legal or family problems. At 1 year follow-up, only violence ($F = 26.43$, $df = 1, 35$, $p < .001$) was significantly improved, consistent with our previous findings (Johnson et al., 1996). Further, the number of people close to the veteran showed a decrease from admission values ($F = 12.88$, $df = 1, 35$, $p < .01$), and BSI psychiatric symptoms had risen significantly ($F = 6.91$, $df = 1, 28$, $p < .05$).

Comparison of Outcome between Program Types

At admission, HETEROG and HOMOG samples were comparable on most demographic and outcome measures, though HETEROG cohorts showed significantly higher values on violence (mean = 13.74 [HETEROG] *vs.* 8.55 [HOMOG], $t = 3.77$, $df = 73$, $p < .01$), and trends for higher ASI psychiatric symptoms, drug problems, and legal problems. However, outcome data analyzed with these measures as covariates showed no significant effects on any result.

Overall, there were few differences in treatment outcome between the HETEROG and HOMOG programs. The single significant difference was that satisfaction with VA PTSD services was higher among HOMOG cohorts (mean = 3.46 [HOMOG] *vs.* 2.68 [HETEROG], $t = 3.51$, $df = 73$, $p < .001$). There were no significant differences on any outcome measure between groups either from admission to discharge, or admission to 1 year follow-up.

Program Environment

Analysis of the PPES data indicates the two treatment environments were distinct, largely consistent with the hypotheses of this study (see Table 2). In the more homogeneous environment, veterans' perceptions of support were significantly greater, though perceptions of involvement and spontaneity were not significantly different.

In the treatment program dimension, the veterans' perceptions of autonomy and practical or personal problem orientation showed no differences between program types, as expected. Overall anger was marginally lower in the HOMOG condition ($p < .10$), which was accounted for entirely by hostile anger.

In the systems maintenance dimension, the veterans treated in the homogeneous program perceived the program as having greater order and clarity as predicted, but no less controlled by staff, than those treated in the heterogeneous program.

Finally, combat discussion was rated significantly higher by veterans in the homogeneous program, in comparison with those in the heterogeneous program.

Subjective Ratings of Benefit

Veterans ratings of overall benefit were higher in the HOMOG condition (mean = 4.77, SD .42) than the HETEROG condition (mean = 4.37, SD .71), which was a significant difference ($t = 3.17$, $df = 73$, $p < .01$). Staff ratings in contrast showed no significant differences.

Discussion

The replication of these outcome results, showing minimal improvement at discharge and no change to some worsening at 12 month follow-up, strengthens questions regarding the role and effectiveness of long-term inpatient PTSD programs for combat veterans. Sustained improvement was only achieved in levels of violent thinking and behavior.

TABLE 1

Means, Standard Deviations, and Random Regression Analyses for Changes in Symptoms and Social Functioning over Time in Heterogeneous and Homogeneous Treatment Programs

	HETERO Cohorts (N = 33)			HOMOG Cohorts (N = 42)			HETERO	Entire sample:
Measures	Admission	Discharge	12 months	Admission	Discharge	12 months	*vs.* HOMOG	Admission to Follow-up
Mississippi PTSD Scale	137.20	143.09	143.12	141.00	139.24	142.16	NS	NS
	(16.49)	(16.20)	(14.19)	(15.75)	(14.88)	(15.23)		
Brief Symptom Inventory	2.25	2.82	2.87	2.33	2.82	2.80	NS	6.91*
	(.79)	(.70)	(.62)	(.69)	(.71)	(.66)		
Guilt Inventory	3.07	3.29	3.31	3.62	3.80	3.33	NS	NS
	(.87)	(.78)	(.89)	(.93)	(.98)	(.86)		
ASI psychiatric problems	.67	.65	.65	.55	.55	.47	NS	NS
	(.14)	(.13)	(.15)	(.13)	(.16)	(.12)		
ASI alcohol problems	.08	.16	.12	.09	.14	.02	NS	NS
	(.21)	(.22)	(.14)	(.18)	(.23)	(.14)		
ASI drugs problems	.05	.04	.03	.02	.03	.03	NS	NS
	(.12)	(.15)	(.11)	(.11)	(.15)	(.10)		
ASI medical problems	.56	.52	.46	.47	.35	.41	NS	NS
	(.44)	(.29)	(.39)	(.41)	(.26)	(.34)		
ASI legal problems	.15	.21	.20	.03	.04	.03	NS	NS
	(.22)	(.25)	(.27)	(.18)	(.22)	(.20)		
ASI family problems	.17	.28	.17	.22	.30	.12	NS	NS
	(.21)	(.31)	(.19)	(.32)	(.18)	(.14)		
Violent actions/thoughts	13.74	8.04	6.04	8.55	5.60	3.40	NS	26.43***
	(6.77)	(4.22)	(3.78)	(5.34)	(4.79)	(3.88)		
Suicide attempt, last 30 days	.04	.12	0.00	0.00	0.00	0.00	NS	NS
	(.20)	(.31)	(.00)	(.00)	(.00)	(.00)		
Number people close to	9.30	10.20	5.32	9.20	8.40	5.79	NS	12.88**
	(9.89)	(9.84)	(5.86)	(8.78)	(8.64)	(4.91)		
Social participation	8.80	9.60	8.80	10.20	8.69	10.50	NS	NS
	(5.34)	(6.77)	(5.73)	(6.47)	(5.21)	(5.37)		
Service connected disability	1.79	2.08	2.00	1.09	1.72	1.63	NS	NS
	(1.43)	(2.18)	(1.66)	(1.01)	(1.49)	(1.44)		

*$p < .05$; **$p < .01$; ***$p < .001$.

All p-values have been corrected for multiple comparisons using the Bonferroni correction.

The data appear to confirm the second study hypothesis: veterans perceived the homogeneous treatment program, in comparison with the more heterogeneous program, as more satisfying, beneficial, supportive, clearly organized, and less hostile. They also felt that more time was spent discussing combat-related experiences. These differences are consistent with the greater cohesion, less interpersonal tension, and greater trauma focus expected in homogeneous, first generation programs. Veterans' perceptions of treatment program subscales did not change, consistent with the fact that no changes were made in the content or emphasis of the treatment program. Nevertheless, the changes in social climate did not result in greater involvement by veterans in the treatment program, nor in staff ratings of greater benefit, suggesting that the effects of homogeneity may have been limited to the veterans' relationships with each other, rather than in their participation in treatment. Apparently, even though the combat veterans had received extensive treatment before admission to the unit and program staff attempted to alter their negative perceptions of other veterans on the unit, they still preferred the support of a highly homogeneous treatment environment. It is possible that a more effective location for heterogeneous programs will be in outpatient or day treatment settings, where the patients may be more oriented to reconnecting with society.

The improved social climate in the homogeneous condition may have been due to a selection bias at admission. Veterans admitted to the homogeneous programs had fewer drug, legal, and violence problems, indicating that program staff may have been selecting less disruptive or unstable patients. Alternately, shifting from a stand-alone cohort to overlapping cohort design may have influenced the perceived social climate. The overlapping cohort design allows for greater transmission of values and norms from one group to the next, possibly creating a more stable milieu.

The third hypothesis was not confirmed: Treatment outcome of both programs was essentially the same, suggesting that differences in the heteroge-

TABLE 2
PTSD Program Environment Scale Scores for Two Program Types

Variable	Means and Standard Deviations HETEROG (N = 33)	HOMOG (N = 42)	t (df = 73)
Relationship dimension			
Involvement	5.76 (2.67)	6.72 (2.00)	1.77
Support	5.64 (2.52)	7.36 (1.87)	3.39**
Spontaneity	4.21 (2.03)	4.83 (1.77)	1.42
Treatment program dimension			
Autonomy	4.24 (1.70)	4.12 (1.66)	.32
Practical orientation	5.76 (2.06)	6.31 (2.08)	1.15
Personal orientation	7.00 (2.36)	7.12 (1.94)	.24
Anger	7.36 (1.41)	6.38 (1.87)	2.51[a]
Therapeutic anger	1.09 (.76)	1.05 (.73)	.25
Hostile anger	6.27 (1.07)	5.33 (1.59)	2.92*
System maintenance dimension			
Order	5.42 (2.44)	6.95 (2.07)	2.93*
Clarity	4.94 (2.82)	6.67 (2.04)	3.08*
Staff control	7.24 (2.12)	7.17 (1.36)	.19
Combat discussion	6.48 (2.69)	8.52 (1.67)	4.02***

[a]$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.
All values corrected for multiple comparisons by the Bonferroni method.

neity of treatment environments did not play an important role in treatment efficacy. Though greater cohesion and peer support was achieved in the homogeneous treatment program, treatment effectiveness was not affected. As we found in a previous study (Johnson et al., 1996), patient satisfaction with treatment seems to be independent of actual treatment outcome.

This study has several limitations. First, only one type of heterogeneity, within one program, for one type of trauma victim, was examined, and therefore the generalizability of these results is not known. Second, because simultaneous comparison of treatment environments was not possible, unmeasured differences in the unit or larger hospital system at the two time periods could confound the data. Third, because the overall treatment effectiveness of this program was poor, the potential impact of differences in treatment environment may not have been allowed to become evident.

Nevertheless, this study does provide quantitative data on the general question of homogeneity of treatment environment, confirming clinical experience that homogeneous groups are associated to some degree with greater cohesion and peer support. Unfortunately, these improvements in social climate and patient satisfaction do not appear to provide any more effective treatment for Vietnam veterans with chronic PTSD. The lack of improvement at follow-up, replicated in this study, raises significant questions regarding the role of long-term inpatient treatment for this population.

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