Therapeutic Alliance and Outcome in a VA Intensive Case Management Program

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A total of 143 clients and their case managers in a Veterans Affairs (VA) intensive case management program modeled on the Program for Assertive Community Treatment rated their therapeutic alliance after two years in the program. Strong case-manager-rated alliance was associated with reduced symptom severity and improved global functioning as rated by independent assessors; it was also associated with higher client ratings of community living skills and more positive outcome as perceived by both clients and case managers. Strong client-rated alliance was associated only with more positive client-perceived outcome. Alliance ratings were not associated with use of inpatient psychiatric hospitalization. The case manager–client alliance appears to be a significant component of therapeutic effectiveness. (Psychiatric Services 46: 719–721, 1995)

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Clinical case management models stress the importance of continuous, responsive relationships between case managers and their clients with serious mental illness for improving community adjustment and reducing reliance on inpatient treatment (1). Teams modeled on the Program for Assertive Community Treatment (PACT) (2,3) seek to optimize client functioning by augmenting traditional "broker" support (referral, placement, and monitoring) with more comprehensive, assertive, and continuous rehabilitative services.

Despite controversy about its parameters and effectiveness, clinical case management has been found to help people with serious mental illness reduce hospital use (2–4). By comparison, little research has been done on the process of interaction between case manager and client or its relation to outcome (1,5).

The therapeutic or working alliance construct (6,7), used primarily in psychotherapy research, offers one avenue for exploring case manager–client interaction. Bordin's formulation (8), which depicts alliance as a product of the emotional bond and collaboration between the helper and the client, has been translated into an assessment measure, the Working Alliance Inventory (WAI) (9), with demonstrated validity and reliability.

Goering and colleagues (5,10) reported significant correlations between WAI scores and subjective ratings of outcome by rehabilitation therapists and their clients. This study, while controlling for pretreatment variables, examined associations between alliance ratings and a broader set of outcome measures, including independently assessed outcomes, in a case management program.

Methods

Study clients were 143 of 166 veterans treated by five teams in a multisite demonstration of the Veterans Affairs (VA) intensive psychiatric community care project (4), which emphasizes community-based case management modeled on PACT in Madison, Wisconsin (2,3).

Each of the 143 clients had participated in the program for two years and was under 65 years of age. Consenting veterans who met criteria for serious mental illness and a high level of inpatient psychiatric hospitalization were recruited during an inpatient stay and randomly assigned to intensive psychiatric community care or standard VA aftercare (4).

Consistent with the general veteran population, the 143 study clients were predominantly middle-aged (median age, 40 years), male (N=137, 96 percent), white (N=106, 74 percent), high-school educated (N=117, 82 percent), unmarried (N=124, 87 percent), and unemployed (N=107, 75 percent). Most clients had *DSM-III-R* diagnoses of schizophrenia, psychosis, or major affective disorder (N=102, 71 percent); the mean±SD number of inpatient psychiatric days for the sample in the past two years was 133±115.

The 143 clients were seen by 30 case managers. Most were women (N=19, 63 percent), who were similar in age to the clients. Case managers had substantial academic training and clinical experience, with means of 7±3 years of education after high school and 8±5 years of clinical work, primarily on psychiatric inpatient units. Caseloads averaged 13 clients.

Data sources for the study included structured interviews by trained evaluation staff conducted when clients entered the intensive community care project and two years later, clinical diagnoses and ratings by inpatient psychiatric staff when clients were discharged from the hospital to the program, a survey of case manager characteristics, VA automated records of all VA hospital use, and structured clinical progress reports by case managers.

The study focused on pretreatment, alliance, and outcome mea-

Table 1
Standardized regression coefficients for hierarchical regression analyses of outcome variables for 143 veterans in an intensive psychiatric community care program for two years[1]

Regression step and independent variable	Perceived outcome		Community living skills at two years	Symptom severity at two years	Global functioning at two years	N inpatient days after program entry
	Case manager	Client				
Step 1: Pretreatment variables						
N inpatient days before program entry	.02	.04	−.10	.08	.04	.39***
Social competence	.00	.01	.02	−.21*	.15	.12
Global functioning	.01	.03	.15	.16	−.17	−.11
Step 2: Alliance variables						
Case-manager-rated alliance	.64***	.05	.23**	−.20*	.36***	.07
Client-rated alliance	.07	.65***	.02	−.08	.11	.04
Total model variance[2]	.42***	.42***	.08**	.07**	.15***	.13***

[1] A more detailed description of regression results, with beta weights and standard error terms, is available on request.
[2] Total model variance is adjusted sum of squared correlation coefficients, full model (N=143).
* $p<.05$
** $p<.01$
*** $p<.001$

sures. In addition to the number of inpatient psychiatric days in the year before program entry, pretreatment variables included measures of social competence and global functioning. Social competence was an objective composite measure based on the client's age, education and employment history, occupational level, and marital status. The Global Assessment Scale (GAS) was used by the primary inpatient clinician to rate the client's functioning at hospital discharge (sample mean=53±10).

Clients and their case managers rated their alliance after two years with parallel forms of the WAI, the client version, or WAI-C, and the case manager version, or WAI-CM (6,9). Items in both versions were revised to reflect differences in treatment modality. References to "sessions" were changed to "work." In addition, items in the WAI-C, which is usually self-administered, were changed from first-person declarative ("I feel uncomfortable with . . .") to second-person interrogatory ("How often do you feel uncomfortable with . . .?") so that the instrument could be read to clients by evaluation assistants during an interview.

Each version has 36 items and uses a Likert-type scale ranging from 1, never, to 7, always. Possible total scores on the WAI range from 36 to 252. Internal consistency reliability scores for the revised scales were high (Cronbach's coefficient alpha=.95 for the WAI-CM and .93 for the WAI-C).

Several outcome measures were used. Clients and case managers rated outcome in three areas—improvement, benefit, and satisfaction—on 5-point scales. Possible scores ranged from 0, negative outcome, to 12, positive outcome. Another outcome measure was client-rated ability to manage five community living skills; possible scores ranged from 5, poor ability, to 20, excellent ability (Cronbach's coefficient alpha=.75).

Symptom severity at program entry and two years was rated by evaluation staff using the Brief Psychiatric Rating Scale (range from 0, low severity, to 114, high). The evaluation staff also used the GAS to measure global functioning at two years (range from 0, low, to 100, high). Finally, inpatient psychiatric days during the two years after program entry were recorded. Residual scores were created for four of the outcome measures (community living skills, symptom severity, global functioning, and number of inpatient days) by regressing baseline values onto two-year scores.

Hierarchical regression analyses were performed for each of the six outcome variables. Each outcome variable was entered as the dependent variable, and the influence of alliance variables was assessed after accounting for effects of pretreatment variables.

Results

Using the WAI-CM, case managers rated their alliances with 166 clients, of whom 143 (86 percent) completed the parallel WAI-C scale. As a group, clients who did not complete the WAI-C scored significantly lower in global functioning ($t=2.58$, $df=141$, $p<.02$) and community living skills ($t=2.34$, $df=141$, $p<.03$) at entry and in case-manager-rated alliance at two years ($t=2.09$, $df=141$, $p<.05$). WAI-C and WAI-CM scale means were comparable to WAI data from other samples (9,10).

Client ratings of the alliance were consistently and significantly higher than case manager ratings (mean±SD of 197±29, compared with 187±29). WAI-CM and WAI-C scores were significantly, if modestly, correlated ($r=.20$, $p<.01$).

Results of the six regression analyses are presented in Table 1. Pretreatment variables did not significantly affect case manager- and client-perceived outcome in the areas of improvement, benefit, and satisfaction. All significant variation in perceived outcome was accounted for in the regressions by the alliance ratings—case manager alliance ratings accounted for case-manager-perceived outcomes and client ratings for client-perceived outcomes.

As also shown in Table 1, variables in both regression steps accounted for significant variation in symptom se-

verity at two years. Of the pretreatment variables, social competence accounted for some of the variation; case-manager-rated alliance also contributed significantly. For community living skills and global functioning at two years, only case-manager-rated alliance contributed significantly to total variance in the final model. For number of inpatient psychiatric days after program entry, total variance was almost exclusively a product of the number of inpatient days before program entry, with no significant contributions by other variables.

To summarize, regression analyses revealed that pretreatment variables were significantly associated with symptom severity at two years and with the number of inpatient days after program entry. Alliance variables, particularly case-manager-rated alliance, were significantly associated with five of six outcomes; the sixth outcome measure, number of inpatient days after program entry, was not associated with alliance ratings by either clients or case managers. Case-manager-rated alliance showed a strong, consistent relationship with outcomes after pretreatment variables were controlled. Client-rated alliance was related to client-perceived outcome alone.

Discussion

Studies of the strength of associations between therapist and client ratings of the therapeutic alliance and between alliance ratings and outcome in conventional psychotherapy have produced inconsistent results, which is partly due to differences in treatment and measurement (6,7,9). In a study of rehabilitation of clients with serious mental illness, Gehrs and Goering (10) reported strong congruence between therapist- and client-rated alliance; they also found that associations between therapist-rated alliance and perceived outcome were stronger than those found in conventional psychotherapy.

The study reported here found lower congruence between case manager and client ratings of the therapeutic alliance, perhaps due to the different modes of administration of the WAI. However, the study also found that case-manager-rated alliance was related to a broader set of outcomes than in conventional psychotherapy. This difference may reflect more extensive knowledge of the client by the case manager, which has been derived from frequent contact and observation in "real-world" settings (10).

Because this study relied on retrospective rather than prospective appraisal of alliance, causal or interactive explanations about alliance and outcome cannot be made. Reliance on retrospective appraisal leaves room for the interpretation that alliance-outcome relationships were the product of post hoc judgments by case managers who were trained to assess change and who knew how things came out. In addition, clients may have lacked the requisite skills or perspective to assess the case manager–client relationship, at least as it pertained to personal change. Data suggest that case-manager- and client-rated alliance had little bearing on hospital use. Although the relationship between the client and his or her case manager can have significant impact on the client's life, use of the hospital may be more strongly determined by such factors as medication use, life events, bed availability, and access to resources, particularly during the early stages of treatment.

Conclusions

This study extends previous findings of associations between provider-client alliance and outcomes perceived by provider and client to include outcome measures made by independent assessors. Although case managers and clients appeared to view their work together from independent perspectives, alliance was significantly related to perceived outcome for both parties; alliance was also related to more objective outcome variables.

Retrospective assessment of the provider-client alliance and the temporal contiguity of alliance and outcome assessments may have exaggerated the strength of alliance-outcome associations and minimized pretreatment effects. Prospective and periodic assessment of the provider-client alliance with a comparable treatment group is a necessary next step, to track development of the relationship over time and, ultimately, to improve understanding of the central therapeutic elements of intensive case management.

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