Patients' and Caregivers' Initial Assessments of Day-Hospital Treatment and Course of Symptoms

Stefan Priebe and Thomas Gruyters

During the first few days after their admission to a day-hospital, 30 patients with schizophrenic or schizoaffective disorders, their clinical case managers, and the therapeutic team in the day-hospital globally assessed the beginning treatment on visual analog scales (VASs). We investigated whether these assessments predicted observer ratings (Brief Psychiatric Rating Scale [BPRS]) and self-ratings of psychopathology during treatment and at discharge. Positive assessments by patients and caregivers were correlated with lower BPRS scores later on in the course of treatment; only the patients' assessments were good predictors of self-rated outcome. Initial global assessments of treatment might indicate qualities of the therapeutic relationship as a relevant nonspecific factor in complex day-hospital treatment.

IN DIFFERENT FORMS of psychiatric treatment, patients' and caregivers' initial assessments of treatment have been found to be predictive of outcome. Thus, more positive initial assessments of treatment and of the therapeutic relationship have been demonstrated to be associated with a more positive outcome in pharmacotherapy,[1-4] psychotherapy,[5-9] and inpatient treatment.[10,11] Some of these findings were made in patients with schizophrenic or schizoaffective disorders. Schizophrenic patients who responded to neuroleptics with dysphoria and believed that the medication was not right for them within the first 2 days have repeatedly been shown to be less compliant and—regardless of compliance—to have a less favorable outcome after 4 weeks. Caregivers' initial optimism regarding treatment has been found to predict long-term outcome of rehabilitation in schizophrenics.[12]

In the present study, we investigated day-hospital treatment in patients with schizophrenic and schizoaffective psychoses. Day-hospital treatment usually combines various somatotherapeutic, psychotherapeutic, and sociotherapeutic approaches, and there is sufficient empirical evidence that treatment of this kind may be equally effective as inpatient treatment and result in significant improvement of psychopathological symptoms and social functioning.[13-16] Yet, little research has focused on the question of how to predict outcome of day-hospital treatment or—more specifically—how the way in which the initial phase of treatment is viewed by patients and caregivers may serve as a predictor.

We studied the initial global assessments of day-hospital treatment in patients, in clinical case managers, and in the therapeutic team by simple methods, and tested whether these assessments predicted observer ratings and self-ratings of symptoms obtained during the course of treatment and at discharge. More positive initial assessments in patients and caregivers were hypothesized to be correlated with a lower degree of symptoms during and at the end of treatment.

METHOD

The day-hospital in which the study was performed is integrated in a community-care system serving an inner-city district of Berlin, Germany. The system includes three partial-hospitalization programs, community-based services, and various outpatient facilities. Clinical case managers follow the patients' paths through the institutions of the system, retain responsibility for all decisions regarding treatment, and also function as individual therapists.

The day-hospital offers a set program for 15 to 20 patients on weekdays from 8:30 AM to 5:00 PM. During the program, the patients participate in various group activities—e.g., group creative activities, music and dance therapy, role playing, bibliotherapy, group discussion, occupational therapy, and cognitive training. The program ensures an activating and stimulating therapeutic milieu. The therapeutic team in the day-hospital consists of caregivers from different professions, such as nurses, art therapists, and psychologists.

The treatments of 30 patients with a diagnosis of schizophrenic or schizoaffective psychosis according to the DSM-III-R[17] admitted in the order of presentation were investigated. An interviewer not otherwise involved in treatment asked the patients, case managers, and therapeutic team in the day-hospital one standardized question each about their global initial assessments of the initial phase of treatment.

From the Department of Social Psychiatry, Freie Universität Berlin, Berlin, Germany.

Address reprint requests to Stefan Priebe, M.D., Department of Social Psychiatry, Freie Universität Berlin, Platanenallee 19, 14050 Berlin, Germany.

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Patients were asked on the day after admission to what extent they believed the treatment they were currently receiving in the day-hospital was right for them. Patients rated their assessments on a 100-mm visual analog scale ([VAS] 0 = not at all, 100 = entirely).[18,19] This scale reflects the often vague and global views of the patients and can be used even for severely disturbed patients who may be unwilling or unable to answer more complicated questionnaires. It has been used in several studies in depressed and schizophrenic patients, in which it yielded scores with external and predictive validity.[20-22] To obtain the caregivers' assessments in an equally global and quantitative manner, they were also asked only one question each. However, this question was slightly more specific (since caregivers are responsible for treatment, they can hardly assess whether it is right in general) and concerned the therapeutic relationship. Within the first 6 days of treatment, case managers and the therapeutic team in the day-hospital were asked separately how they were getting along with the patient in therapeutic terms, and rated their answers on a VAS (0 = very badly, 100 = very well). The answer of the therapeutic team was given as a group rating after a discussion. Each VAS for the assessment of treatment was divided into 10-mm intervals, so that the qualities of a VAS were combined with the features of an 11-point rating scale.[23] Neither the patients, case managers, nor therapeutic team were informed of each other's ratings.

Patients' symptoms were assessed on the day after admission, after one, 2, and 4 weeks of treatment, and at discharge. Observer ratings were made on the Brief Psychiatric Rating Scale (BPRS) by a psychiatrist who was neither involved in treatment nor informed about the patients' or caregivers' initial assessments. Self-ratings were made on a VAS on patients' general condition according to the method of Aitken[24] (0 = my condition is generally good, 100 = my condition is generally bad).

RESULTS

Sample and Treatment

The ages of the 30 patients (16 women, 14 men) ranged from 20 to 54 years (mean = 35.2, SD = 8.6). Two patients had not completed school education, 17 had completed secondary school, and 11 had completed higher education. Thirteen patients had no occupational qualification, nine had completed an apprenticeship, and eight held university degrees. At the time of the study, 16 patients were without a job or had retired prematurely, seven held a full-time job, and seven a part-time job. Thirteen patients were living alone, four with their parents, and 12 with a partner. One patient was living in a therapeutic institution.

The diagnoses according to the DSM-III-R were disorganized type (15 patients) or paranoid type (seven) of schizophrenia, and schizoaffective disorder (eight). The frequency of previous periods of full hospitalization varied between 0 and 20 (mean = 5.0, SD = 4.6), and the number of previous periods of partial hospitalization also ranged between 0 and 20 (mean = 3.4, SD = 5.4). The length of time since the first period of full or partial hospitalization was 6.8 years, on average (SD = 8.6). Fourteen patients were referred to the day-hospital from the outpatient unit of the care system, 12 from psychiatric hospitals, three from private practices, and one from a state healthcare service in the district.

Six patients left the day-hospital on their own initiative, and 24 were discharged on mutual agreement between staff and patients. In the whole sample, the duration of day-hospital treatment varied between 11 and 175 days (mean = 67.3, SD = 41.6). During this time 26 patients received neuroleptics, four antidepressants, one benzodiazepines, and six lithium or carbamazepine.

Outcome

Figure 1 summarizes the mean scores of the observer ratings and self-ratings of symptoms at each measuring time. Since one patient was discharged before the end of the second week and another two before the end of the fourth week, the sample was accordingly smaller after 2 and 4 weeks. At discharge, the scores of all patients were considered.

The reduction of mean scores from admission to discharge was significant on the BPRS (t test for paired samples, $t = 3.66$, $P < .001$) and on the VAS ($t = 2.34$, $P < .05$).

Initial Assessments

The initial assessments of treatment of the patients (mean = 68.0, SD = 26.1), case managers (m = 56.6, SD = 22.8), and therapeutic team in the day-hospital (m = 56.1, SD = 24.9) were in the positive range. Each of these assessments was positively correlated with the others. Coefficients of correlation were .53 (Pearson's r, $P < .01$) between the case managers' and therapeutic team's assessments, .34 between the patients' and case managers' assessments ($P < .05$), and .28 between the patients' and therapeutic team's assessments ($P < .10$).

A more positive patient's assessment was correlated with a higher frequency of previous

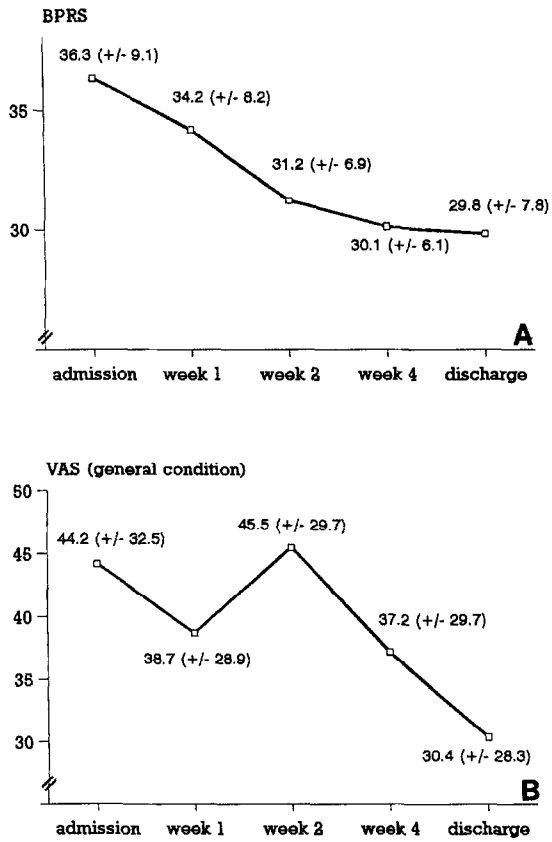

Fig 1. Patients' (A) BPRS and (B) VAS (general condition) scores during treatment.

periods of partial hospitalization ($r = .49$, $P < .01$). The therapeutic team tended to assess patients with a longer duration of illness ($r = .27$, $P < .10$) and with more previous periods of full hospitalization ($r = .26$, $P < .10$) more negatively. Other significant correlations between patients' and caregivers' assessments, on the one hand, and basic sociodemographic or clinical variables (age, gender, school education, professional qualification, occupational status, living environment, frequency of periods of full and partial hospitalization, and diagnostic subgroup), on the other, were not found.

Prediction

Patients' and caregivers' initial assessments of treatment tended to be more negative in those six patients who finally left the day-hospital on their own initiative. Yet, due to the small size of that subgroup, differences failed to reach statistical significance.

Correlations between patients' and caregivers' initial assessments of treatment for the whole sample and the BPRS scores after admission and during treatment are shown in Table 1. Additionally, we examined whether the correlations between initial assessments of treatment and BPRS scores obtained later on in treatment were due to a similar influence of baseline BPRS scores on the other two variables. Thus, correlations between initial assessments and BPRS scores from the first week on were adjusted for the regression on baseline BPRS scores obtained after admission. The adjusted correlations are also listed in Table 1.

There were no statistically significant correlations between patients' and caregivers' initial assessments and baseline BPRS scores. However, all but two correlations between the initial assessments and BPRS scores obtained at later stages of treatment were statistically significant. Most coefficients were moderately high, indicating that a more positive initial global assessment of treatment by patients and caregivers predicted a lower degree of psychopathological symptoms throughout treatment from the first week on and at discharge. When the correlations adjusted for the regression on baseline BPRS scores were eliminated, the correlations remained almost unchanged. Thus, the predictive value of patients' and caregivers' initial assessment was independent of the predictive power of BPRS scores. The initial assessments of the patients, case managers, and therapeutic team did not clearly differ in predictive power.

Table 2 summarizes the correlations between patients' and caregivers' initial assessments and the self-rated VAS (general condition) scores.

Table 1. Correlations Between Patients', Case Managers', and Therapeutic Team's Initial Assessments of Treatment and Patients' BPRS Scores During Treatment

Initial Assessment	BPRS				
	Admission	Week 1	Week 2	Week 4	Discharge
Patients	−.21	−.23	−.47†	−.63‡	.32*
		(−.13)	(−.43)*	(−.62)‡	(−.29)
Case managers	−.25	−.46†	−.18	−.55†	−.32*
		(−.40)*	(−.06)	(−.51)	(−.28)
Therapeutic team	−.11	−.50†	−.38*	−.44*	−.44†
		(−.56)†	(−.38)*	(−.44)*	(−.43)*

NOTE. Adjusted correlations with the influence of BPRS score at admission are eliminated in parentheses.

*$P < .0.5$

†$P < .01$.

‡$P < .001$.

Table 2. Correlations Between Patients', Case Managers', and Therapeutic Team's Initial Assessments of Treatment, and Patients' Self-Rated VAS (general condition) Scores During Treatment

	VAS (general condition)				
Initial Assessment	Admission	Week 1	Week 2	Week 4	Discharge
Patients	.11	.46*	.56†	.52†	.40*
		(.48)*	(.56)†	(.55)†	(.39)*
Case managers	.19	.33*	.35*	.27	.21
		(.27)	(.30)	(.20)	(.15)
Therapeutic team	.10	.27	.37*	.22	.16
		(.25)	(.36)	(.20)	(.13)

NOTE. Adjusted correlations with the influence of VAS score at admission eliminated are in parentheses.

*$P < .05$.

†$P < .01$.

Adjusted correlations with the influence of baseline VAS scores eliminated are also shown.

Again, there were no significant correlations between the initial assessments and the baseline scores. A more positive initial assessment by caregivers significantly predicted more favorable self-ratings only after 1 and 2 weeks, respectively. The scores after 4 weeks and at discharge were no longer significantly correlated with the caregivers' initial assessments. However, the patients' initial assessments clearly predicted the self-rated general condition after 1, 2, and 4 weeks and at discharge. The coefficients ranged from .40 to .56, and were all statistically significant. The elimination of the influence of baseline scores did not change the results.

When stepwise multiple regression analyses were calculated with the scores obtained on the BPRS and VAS during treatment as dependent variables, the amount of variance explained by the single-best predictor of each variable—i.e., the patients', case managers', or therapeutic team's initial assessment—was not significantly increased by including the initial assessments of other evaluators as additional predictors.

DISCUSSION

In the evaluation of the findings of this naturalistic study, it is important to consider some methodological problems. The methods used to investigate the initial assessments of day-hospital treatment were very simple and—in the case of the caregivers—tentatively applied. The sample was small and heterogeneous with regard to sociodemographic and clinical features. The duration of treatment varied greatly. However, despite the heterogeneity of the sample and the simplicity of the methods, the study yielded significant results that are consistent with the hypothesis and do not seem surprising in the light of clinical experience. The more positively the initial stage of treatment was assessed by the patients and caregivers, the more favorable were the course of the symptoms and the eventual outcome.

The correlation between the case managers' and therapeutic team's initial assessments of treatment was moderately high, whereas that between the caregivers' and patients' assessments was lower (these two groups were not asked identical questions). Thus, the initial assessments as investigated in the study differed to some extent, but all were of significant predictive value. They did not reflect baseline psychopathology scores as strongly as levels of psychopathology during later stages of treatment. And the adjustment of correlations for the regression on baseline psychopathology demonstrated that the predictive value of initial assessments was independent of the relationship between baseline and later psychopathology scores.

When symptoms rated by an independent psychiatrist were taken as a criterion for prediction, the predictive value of the three assessments was similar. When self-rated symptoms were considered, the patients' initial assessment was the best predictor, in which case the predictor and outcome criteria were both rated by the same person. The caregivers' assessments predicted the level of self-rated symptoms for 2 weeks following the assessment, but not thereafter. Patients' assessments of treatment are therefore at least equally as relevant as those of professional caregivers.

Which interactional or cognitive processes influence assessments of day-hospital treatment during the short period of the first days, and by which mediating variables these assessments are linked with outcome, remain unclear. Patients' and caregivers' initial assessments may indicate qualities of the therapeutic relationship that—in analogy to the construct of the helping or working alliance in psychotherapy—are relevant for outcome as a nonspecific therapeutic component.[22,25-27] However, whereas in

conventional psychotherapy the therapeutic relationship is merely dyadic, in day-hospital treatment various relationships with several caregivers and fellow patients may be supportive for the patient and therapeutically effective. During the first days of treatment, the patient and caregivers might already be able to judge whether the patient's expectancies and manner fit in with the therapeutic ideology, approach, and style of the institution.[28] Accordingly, a more or less stable and helpful relationship is formed between the patient and his/her caregivers. This relationship may then be associated with motivation and compliance on the part of the patient and with therapeutic zeal and care and attention on the part of the caregivers.

It may be concluded that even in complex treatment settings such as day-hospital, patients' and caregivers' initial assessments of treatment can be significant predictors of psychopathology scores during later stages of treatment and of eventual outcome. These initial assessments can be obtained by simple and global methods. In the case of negative assessments, special interventions—possibly in the form of supervision—or a change in setting might be useful.

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