

Early subjective reactions predicting the outcome of hospital treatment in depressive patients

S. Priebe

Department of Psychiatry (Head: Professor H. Helmchen), Free University of Berlin, West Berlin, Germany

ABSTRACT - Early statements by 41 depressive inpatients about a subjective change in their condition and about their attitude to proposed treatment were examined. These statements, made on the day after admission, were found to correlate with the outcome of the treatment. It was found that early subjective reactions can indicate to some extent, not only the result of hospital treatment for depressive symptoms, but also the outcome measured by objective and subjective criteria, after a 3 to 4 month follow-up.

Received January 16, 1987; accepted for publication February 1, 1987

In trying to improve decisions about the type and course of psychiatric treatments, the question arose as to how far the patients' early reactions can be seen to predict the eventual outcome of a therapeutic method. This has been examined with in various therapeutic approaches. Early reactions and outcomes have always been related to a particular method of treatment, which may be a psychotherapeutic or a somatotherapeutic one. In both individual psychotherapy (1) and family therapy (2), variables, which can be assessed during or after the first session, have been found to indicate, to some extent, the progress of the patient and the direction of treatment. Luborsky et al. (3) showed that patients who found the experience of therapy and therapist helpful after early sessions are more likely to benefit eventually from psychotherapy. Similarly, in psychopharmacology, a significant correlation was found between subjective initial responses and outcome (4-6). "Subjective initial response" means patients' statements made shortly after the beginning of treatment - whether they felt differently after the first use of drugs, and whether they thought they would receive the right medication.

The aim of this study was to test whether the outcome of such a complex process as hospital treatment (with all its various therapeutic approaches), could also be predicted by looking at patients' early subjective reactions.

Method

All patients with subjective depressive symptoms (Von Zerssen depression scales $DS + DS' \geq 24$, according to a more common DS -score of 12) admitted in 3 1/2 months in 1985 were examined. Patients with schizophrenic, bipolar affective, and organic disorders were excluded because of the different concepts of illness for these disorders. Apart from this exclusion, there was no other restriction. Depressive symptoms were selected as a criterion for inclusion and evaluation, because even in cases that are not primary depressive disorders, depressive symptoms can be regarded as especially relevant to the patient's suffering and indirectly to his admission to hospital.

The early subjective reaction was assessed in the afternoon of the day after admission. By then, the regular intensive psychiatric examina-

Table 1
Distribution of primary psychiatric diagnoses at the beginning and termination of treatment according to the ICD-9 classification

Diagnosis	Termination of treatment	Beginning of treatment
Endogenous depression	16	17
Isolated hypochondriac delusion	1	1
Anxiety neurosis	1	1
Hysterical neurosis	2	1
Obsessive compulsive neurosis	2	2
Neurotic depression	10	9
Hypochondriac neurosis	1	2
Hysterical personality disorder	1	0
Alcohol dependence	3	3
Acute depressive reaction	1	2
Longer lasting depressive reaction	2	2
Depressive condition without clarification	1	1

tion by the psychiatrists had already taken place. Medication had not yet started for any patient. An interviewer, who was not involved in any way with the treatment later on, asked the patients, how they felt after the psychiatric examination. Possible answers were: better than, unchanged, or worse than before. They were also asked, whether they believed they would be receiving the right treatment. Possible answers were: yes, undecided, and no. On the afternoon after the day of admission and on the afternoon before the day of discharge, the patients' depressive symptoms were assessed by the psychiatrists using the Hamilton Depression Scale (7), and self-rated on the Von Zerssen Depression Scales (8). Finally, before discharge, patients were asked, whether the treatment as a whole had been more, equally, or less successful than they had expected in the beginning.

However, it seemed unsatisfactory to determine the success of hospital treatment by exclusively using variables which were assessed during the treatment itself; particularly since treatment only ended when the patients were fit to be discharged. Therefore, checks were made 3-4 months after patients were discharged, to see whether they had been readmitted to a psychiatric hospital in the meantime. Those patients, who had not been readmitted, were asked about

their present condition either by telephone or by letter.

Characteristics of the sample and the psychiatric treatments

The type and course of treatment, and outcome of 41 patients (30 female, 11 male) were examined. Their ages ranged from 21 to 81 (mean = 50) years. For 21 patients this was the first admission to a psychiatric hospital. Thirty-two patients had previously received psychotropic medication and nine had undergone some sort of psychotherapy before. The distribution of primary psychiatric diagnoses at termination and at the beginning of treatment according to ICD-9 classification (9) are shown in Table 1. The diagnostic judgement changed for only three patients during the treatment. In five patients, the secondary diagnosis was drug abuse or dependence.

For the whole sample the mean score on the Hamilton Scale was 19 at the beginning (range: 6-49, s = 7.6) and 6 at the end of the treatment (range: 0-28, s = 6.0). On Von Zerssen Depression Scales (DS + DS'), the mean score was 51 (range: 24-80, s = 14.8) initially, and 27 (range: 4-75, s = 18.8) before discharge. The patients stayed in hospital for between 3 and 223 days (mean = 58, s = 36). They were treated on five different wards by 12 psychiatrists. During this time, 32 patients received antidepressives, 12 received neuroleptics, four received benzodiazepines, and three received lithium. Six patients did not receive any medication. On an average, 2.1 different psychotropic drugs per patient were given. Two patients received electroconvulsive therapy. Besides the ordinary programme on the ward, special occupational therapy took place with 12 patients. The type and amount of psychotherapeutic activities depended very much on the nature and extent of the psychiatrists' psychotherapeutic training and on the ward's atmosphere and staff. The therapeutic activities included partly group therapy and, with one patient, music therapy.

Results

Asked how they felt after the first psychiatric examination, 15 patients said they felt better

Table 2

Mean scores of Von Zerssen depression scales (DS + DS') and Hamilton Depression Scale at the beginning and at the end of treatment for the three groups with different early reactions and results for the Kruskal-Wallis one-way-ANOVA

Mean scores	Condition after first examination			One-way-ANOVA		
	Better <i>n</i> = 15	Unchanged <i>n</i> = 19	Worse <i>n</i> = 7	Chi ²	df	<i>P</i>
<i>DS + DS'</i>						
After admission	43.6	55.8	52.4	5.4	2	n.s.
Before discharge	19.3	31.6	33.1	6.7	2	< 0.05
<i>Hamilton Scale</i>						
After admission	16.0	19.1	22.7	1.8	2	n.s.
Before discharge	5.6	6.8	7.4	1.4	2	n.s.

Mean scores	Expectation of receiving the right treatment			One-way-ANOVA		
	Yes <i>n</i> = 17	Undecided <i>n</i> = 18	No <i>n</i> = 6	Chi ²	df	<i>P</i>
<i>DS + DS'</i>						
After admission	48.9	53.1	49.2	0.8	2	n.s.
Before discharge	20.5	31.9	33.3	3.0	2	n.s.
<i>Hamilton Scale</i>						
After admission	16.3	19.7	21.8	2.6	2	n.s.
Before discharge	4.5	7.1	10.2	6.3	2	< 0.05

than before, 19 said their condition was unchanged, and seven said it was worse than before. On the second question, whether they believed they would be receiving the right treatment, 17 patients believed that this was the case, 18 were undecided, and six thought they would not be receiving the right treatment. The answers to the two questions did not show significant correlation (Kendall's tau = 0.02, n.s.).

For neither of the two questions did the three groups with positive, neutral, or negative early reactions differ significantly in the scores of the Hamilton Scale or the Von Zerssen Depression Scale at the beginning. Regarding the nevertheless apparent differences, one should bear in mind that those scores were rated on the day after admission, so they could have been influenced by changes in accordance with the early reactions. Yet at the end there were indications that patients with positive early reactions showed the lowest scores, and patients with a negative response the highest scores. In Table 2, these results are summarized.

Before discharge, when asked how successful

the treatment had been compared with their initial expectations, 17 patients thought that the treatment had been more successful, 12 equally successful, and 11 less successful than they had expected at the beginning. These answers showed a modest, but significant positive correlation with the patients' early statements on whether they believed they would be receiving the right treatment (Kendall's tau: +0.39, $P < 0.05$): patients who initially expected to be treated correctly tended more often to judge afterwards the whole treatment as having been more successful than expected. Patients, who did not expect the right treatment, tended to judge it as having been even less successful than expected.

In order to evaluate the patients' further progress 3 to 4 months after discharge, patients were divided into two groups: one group, where the hospital treatment could be regarded as more or less successful, and another group, where treatment could be taken as having failed, applying a combination of objective and subjective criteria. Patients whose treatment was judged to have failed were those who had in the meantime been

Table 3
Comparison of early subjective reaction with outcome assessed by objective and subjective criteria 3-4 months after discharge

	Success	Failure
<i>Condition after first examination</i>		
Better	14	1
<i>Condition after first examination</i>		
Unchanged or worse	10	16

Chi² = 11.8, df = 1, *P* < 0.001.

readmitted to a psychiatric hospital (five patients); and those, who did not work at the end of the follow-up period, although they had been working when admitted to hospital (four patients). A subjective criterion of failure was when patients said their condition was the same (seven patients) or even worse (two patients) than at the time of admission. Because one patient fulfilled the two criteria of not working (despite the ability to work when admitted) and of feeling the same as at the time of admission, 17 patients were eventually assessed as failures. These two groups (successes and failures) were compared (using their early statements) regarding a change in their condition after the first psychiatric examination. A difference was made only between patients who felt better after the first psychiatric interview, and those who stated their condition was unchanged, or worse than before, which means between the patients who showed a positive early subjective reaction and those who did not. The distribution gained by that comparison is shown in Table 3.

A positive early reaction in the definition used here is, with one exception, in no case associated with a failure assessed after the follow-up period; whereas with neutral or negative early reactions the opposite tendency appears.

Discussion

The results show that the early subjective reactions can predict to some extent the outcome of hospital treatment, at least in this sample, even when the methods of assessing those reactions are as simple as in this study. The patients' statements 1 day after admission already permit

an important conclusion, not only for the reduction of depressive symptoms achieved during the treatment, but even more clearly for the outcome after the follow-up period, which clinically seems to be of greater relevance. Since there is no clear cause for the early statements, they should not be called responses, because unlike in psychopharmacology, for example, it is very doubtful to what it could be a response. Therefore, the word "reaction" is preferred here in order to describe a behaviour in a special situation. Patients' general attitudes and expectations, and an existing willingness to accept a treatment may play a role.

But basically the reactions reflect a phenomenon which can only be seen within all the interactions in the complex social situation of hospital admission.

The lack of correlation between the two questions used in assessment of the early reactions and the different correlations found for the two questions indicate that the statements about early change in condition and about the agreement with the offered treatment represent different aspects of the possible early reactions; yet what this difference means remains unclear. Similarly open is the question of which conditions there are for the early subjective reactions and whether, or even how, they could be influenced by the psychiatrist or by the construction of the therapeutic setting.

Conclusions

Taking into account the heterogeneity of the studied sample and the variance of the possible interactions during hospital treatment, the correlations found can hardly be reduced to the influence of single factors or certain therapeutic methods. Understanding the results in a purely descriptive way, the patients' progress during treatment and even afterwards seems to be indicated very early on within the relatively consistent institutional framework of a psychiatric hospital setting. This cannot necessarily be taken to mean that during the whole treatment methods are generally or even in detail, of little or no importance. In any case, positive early subjective reactions can justify optimism for further progress regarding the outcome of current treat-

ment, whereas a neutral or negative reaction may lead to a reconsideration of the whole therapeutic situation.

References

1. Hand I, Angenendt J, Fischer M, Wilke C. Exposure in vivo with panic management for agoraphobia: Treatment, rationale, and long-term outcome. In: Hand I, Wittchen H U (eds): Panic and phobias. Empirical evidence of theoretical models and long-term effect of behavioural treatment. Berlin: Springer, 1986.
2. Viaro M, Leonardi T, Sbattella F. Opposition und Obstruktionismus in der ersten Familiensitzung. *Familiendynamik* 1984;9:255-277.
3. Luborsky L, McLellan A T, Woody G E, O'Brien C P, Auerbach A. Therapist success and its determinance. *Arch Gen Psychiatry* 1985;42:602-611.
4. Fink E, Braden W, Qualls C. Predicting pharmacotherapy outcome by subjective response. *J Clin Psychiatry* 1982; 43:272-275.
5. Hogan P, Awad A G, Eastwood M R. Early subjective response and prediction of outcome to neuroleptic drug therapy in schizophrenia. *Canad J Psychiatry* 1985;30:246-248.
6. Van Putten T, May P. Subjective response as a predictor of outcome in pharmacotherapy. *Arch Gen Psychiatry* 1978; 35:477-480.
7. Hamilton M. A rating scale for depression. *J Neurolog Neurosurg Psychiatry* 1960;23:56-62.
8. Von Zerssen D. Clinical self-rating scales (CSr-S) of the Munich Psychiatric Information System (Psych IS, München). In: Sartorius N, Dan T A (eds): Assessment of depression. Berlin: Springer, 1986.
9. International Classification of Diseases. Manual of the international statistical classification of diseases, injuries, and causes of death. Based on the recommendations of the 9th Revision Conference, 1975, and adopted by the 29th World Health Assembly, Volume 1. Geneva: World Health Organization 1977.

Address

S. Priebe, M.D.
 Department of Psychiatry
 Free University of Berlin
 Eschenallee 3
 D 1000 Berlin 19
 West Germany