Outcome of Psychiatric Treatment: What Is Relevant for Our Patients?

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This study investigated relevant outcome domains in the patient's perspective following psychiatric outpatient treatment for non-psychotic, non-substance-related disorders. Questionnaires, including the Client Satisfaction Questionnaire (CSQ) and the Bern Inventory of Treatment Goals (BIT-C) applied as a broad typology of outcome domains, were mailed 1 year after treatment to outpatients who had undergone eight or more therapy sessions. Patients reported a wide range of relevant outcomes, including changes with respect to the interpersonal domain, their self-concept, and existential issues. Changes in depressive and anxiety symptoms were rated as particularly important; the reports of both symptomatic and more integral changes were related to treatment characteristics, patient's diagnostic category, and patient's employment status. Patient satisfaction was particularly related to reported changes in the interpersonal domain. This exploratory study provides evidence that traditional outcome measures that include mood, anxiety, and fear symptoms continue to assess the most important areas for change in patients' views. However, they might miss relevant therapeutic achievements in some of our patients, particularly in those suffering from adjustment and personality disorders. The use of measures that include dimensions such as personal growth, purpose of life, and positive relations with others may record important changes in these patients.

OUTCOME EVALUATION and quality assurance of psychiatric services has become an important research issue and has received increasing methodological and empirical interest during the last decade. Outcome assessment on multiple dimensions such as psychopathology, functioning, and satisfaction in multiple perspectives including individuals' subjective experiences has been proposed.[1] "Clinical significance" refers to the practical importance of the effect of an intervention, that is, whether the intervention makes a real difference in everyday life to the patients or to others with whom the patients interact.[2] Unfortunately, disease-specific clinical outcomes measured by efficacy studies are not necessarily linked to clinical and societal significance such as social functioning and costs[3,4] or to patient satisfaction.[3,5]

Several factors have been shown to influence clinically significant change. Different therapeutic strategies such as psychotherapy, pharmacotherapy, and combined treatments may have differential effects.[6,7] The relation between different outcome domains depends on the psychiatric disorder; for example, patients with panic disorders have shown a remarkable disjunction between reductions in panic attack frequency and overall clinical and functional improvement.[8] In addition, patient characteristics such as social and cognitive dysfunction may influence the domains of clinically significant outcomes.[9] On an individual level this problem in outcome methodology might be even more accentuated: A patient may be satisfied with therapeutic gains when he or she has learned to better cope with his/her symptoms, independently of concrete changes in symptom levels. In addition, actual and perceived change may be correlated on a group level, but there may be no connection in a particular individual or the relation may be altered with therapy.[2]

An investigation into the problems and treatment goals recorded by patients before psychiatric treatment[10] showed that disorder-specific psychological, somatic and interpersonal problems were most common; however, more than half of the treatment goals went beyond symptoms and were not disorder-specific such as "to find enjoyment in life," "to improve the relation to my family," and "to find peace." A cluster analysis of patient reported outcomes after psychotherapy[11] revealed that only half of the patients rated symptom reduction as a most important change, and that changes in various aspects of the self-concept, including self-confidence and self-definition, were important outcomes.

The use of a typology of outcome domains has been proposed in order to identify primary do-

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Table 1. Reports of All Changes and of Most Important Changes in the 21 Specific Categories of the BIT-C

Goal Categories	All Changes		Most Important Changes	
	No. of Reports	% of Patients*	No. of Reports	% of Patients†
1. Depressive symptoms	72	74.2%	28	33.3%
2. Fears and anxiety	63	64.9%	31	36.9%
3. Obsessions and impulses	38	39.2%	7	8.3%
4. Coping with trauma	39	40.2%	9	10.7%
5. Substance use and addiction	17	17.5%	1	1.2%
6. Eating behaviors	19	19.6%	8	9.5%
7. Sleep	30	30.9%	8	9.5%
8. Sexuality	7	7.2%	0	0.0%
9. Coping with somatic problems	33	34.0%	9	10.7%
10. Difficulties in specific life domains	45	46.4%	12	14.3%
11. Medication issues	24	24.7%	5	6.0%
12. Current relationship	26	26.8%	5	6.0%
13. Parenthood	16	16.5%	1	1.2%
14. Other relationships and loneliness	43	44.3%	15	17.9%
15. Assertiveness	37	38.1%	5	6.0%
16. Connectedness and intimacy	25	25.8%	2	2.4%
17. Activity, relaxation, and well-being	66	68.0%	16	19.0%
18. Meaning of life	52	53.6%	10	11.9%
19. Attitude toward self	55	56.7%	9	10.7%
20. Self-control and responsibility	43	44.3%	5	6.0%
21. Emotion regulation	42	43.3%	7	8.3%
No change	8	8.2%	8	9.5%

*N = 97; †N = 84, 13 missing data.

mains of clinical significance to which researchers and clinicians ought to attend when choosing an appropriate set of outcome measures.[2] Moreover, in the assessment of clinical significance, patients' views were found to be crucial, since there is evidence that the subjective experiences of illness are more related to the use of health care services than objective or independent health measures.[1]

In this exploratory study, where the report and subjective experience of the patients was of central interest, we applied a typology of outcome domains as a self-report measure to psychiatric outpatients treated in a general hospital setting. In this type of patients, a particularly poor general health perception and a high degree of functional impairment were found,[12] and therefore the assessment of clinically significant outcomes may be challenging. To our knowledge, this is the first study investigating relevant outcome domains in the perspective of these patients.

METHOD

The study included all outpatients who received eight or more sessions of individual psychiatric-psychotherapeutic treatment at the Psychiatric Department of the University Hospital of Zurich, Switzerland, during the years 1999 and 2000. The Psychiatric Department includes an outpatient clinic attached to the university's general hospital. Patients were considered eligible if they were diagnosed with one of the following International Classification of Diseases (ICD-10)[13] diagnostic categories: F3 (mood/affective disorders), F4 (neurotic, stress-related and somatoform disorders), F5 (behavioral syndromes associated with physiological disturbances and physical factors, mainly eating disorders), or F6 (disorders of adult personality and behavior).

Nine to 21 months after the end of treatment 161 patients (1999: 65; 2000: 96) were contacted by mail and asked to participate in the study by filling in a self-report questionnaire. Patients who did not respond after 3 weeks were sent a reminder. Following this procedure a total of 97 patients returned the questionnaire (response rate, 60.2%). All subjects participated voluntarily in the study after written informed consent was obtained.

Measures

The patients' demographic and administrative data and their diagnoses were registered at the beginning and at the end of treatment. Diagnoses were based on the clinical interview at the beginning using the ICD-10.[13]

Therapeutic change as perceived by the patients was assessed with a modified form of the Bern Inventory of Treatment Goals (BIT-C).[14] The 67 items of the inventory were preceded by the statement "My therapy at the Psychiatric Outpatient Clinic helped me to. . . ." These 67 items can be subsumed hierarchically under 21 change categories (Table 1) and six change types: P = coping with specific problems and symptoms (categories 1 to 10), M = medication issues referring to the handling of and confidence in drug treatment (category 11), I =

interpersonal changes (categories 12 to 16), W = well-being and functioning (category 17), E = existential issues (category 18), and G = personal growth (categories 19 to 21). The analysis of the BIT-C results in dichotomous multiple responses for the change categories and change types (0 = not present, 1 = present). At the bottom of the item list patients were asked to record the three most important changes. For further details of this modified form of the BIT-C see Hasler et al.[15]

Patient satisfaction was assessed with the three-item short form of Larsen's Client Satisfaction Questionnaire (CSQ).[16] The CSQ is one of the most widely used satisfaction measures in German-speaking countries.[17] We chose its short form because research by Larsen and colleagues had shown that there is only one underlying factor of their eight-item scale with a high degree of internal consistency (Cronbach's alpha was 0.94 in a large follow-up assessment).[16] In our sample, Cronbach's alpha was 0.89.

Statistical Analyses

SPSS for Windows (release 10.0; SPSS, Inc., Chicago, IL) was used for statistical analyses. Data assessed by the BIT-C were analyzed using multiple response statistics. Groups of patients (e.g., with different diagnoses) were compared by chi-square and Fisher's exact tests. For the comparisons of satisfied and dissatisfied patients, a median split was conducted. Because of the nonparametric level of analysis and the rather small sample size, bivariate analyses were conducted only. All reported significance levels are based on two-tailed probability.

Sample and Treatment Characteristics

The average age of the 62 female patients (63.9%) and 35 male patients (36.1%) was 39.1 years (SD 14.1). Thirty-two patients (33.0%) were married, 55 (56.7%) unmarried, seven (7.2%) separated, one (1.0%) widowed, and two (2.1%) had missing data with regard to their marital status. Twenty-one (21.6%) lived alone; 64 (66.0%) lived with parents, partners, or other persons; and the remaining twelve (12.4%) provided no data on their living arrangements. Forty-four (45.4%) had full-time paid work, 15 (15.5%) part-time paid work, 33 (34.0%) had no paid work or were unemployed, and in five (5.1%) no information on their professional life was available. Eighteen patients (18.6%) had affective disorders, 33 (34.0%) anxiety disorders, 19 (19.6%) adjustment disorders, 5 (5.2%) somatoform disorders, 13 (13.4%) eating disorders, and nine (9.3%) personality disorders. Responders and nonresponders (N = 64) differed significantly with respect to diagnostic categories (Pearson $\chi^2 = 11.8$, $df = 5$, $P < .05$) with more anxiety and fewer eating disorders among the responders. With regard to gender, age, education, and psychotropic medication, there were no significant differences between responders and nonresponders.

Treatments comprised individual short-term therapies with behavioral and interpersonal elements, with or without medication. All treatments were conducted by residents who were in the last years of their specialization as psychiatrists, with the assistance of an external supervisor. The average number of therapy sessions was 17.5 (SD 12.3; range, 8 to 70); 53 patients (54.6%) received psychotherapy combined with psychopharmacological medication, and 44 (45.4%) received psychotherapy only. Antidepressants were prescribed in 73.6%, tranquilizers in 26.4%, and neuroleptics in 11.3% of patients treated with medication.

RESULTS

On average, patients reported 11.4 (SD 8.3) changes (out of the 67 change items) through their psychiatric treatment. Table 1 shows the frequencies of reported changes by change categories. Over half of the patients reported changes with respect to depressive symptoms, anxiety symptoms, well-being, meaning of life, and attitude toward self. Changes concerning sexuality, parenthood, substance use, and eating behavior were reported least frequently. Eight patients did not report any change. Table 1 shows also the frequencies of the three most important changes. Patients recorded improvement of depressive and anxiety symptoms as most important with the highest frequency by far.

Treatment Characteristics

The number of therapy sessions was positively correlated with reports of most important changes in coping with specific problems and symptoms (Spearman's rho = .23, $P < .05$). Patients treated with psychotherapy only tended to report more often most important changes in well-being and functioning (27.5% *v* 11.4%, Pearson $\chi^2 = 3.54$, $df = 1$, $P = .06$) and in eating behaviors (17.5% *v* 2.3%, Fisher's exact test, $P < .05$) than patients who had psychotherapy combined with psychopharmacological medication. All patients who reported relevant improvements of sleep disturbances received pharmacotherapy (18.2% *v* 0%, Fisher's exact test, $P < .01$).

Diagnostic Category

Table 2 shows the reports of most important change types by patients of different diagnostic categories. Patients with anxiety disorders reported more most important changes in coping with specific problems and symptoms than other patients (Pearson $\chi^2 = 4.36$, $df = 1$, $P < .05$). Subjects diagnosed as having an adjustment disorder reported relatively often improvement in personal growth as most important change (Fisher's exact test, $P < .05$). Personality disordered patients reported fewer most important changes in coping with specific problems and symptoms than patients with axis I disorders (Fisher's exact test, $P < .05$).

Figure 1 shows the most important symptom

Table 2. Reports of Most Important Changes of Patients in Different Diagnostic Categories

Diagnostic Category	N	Change Types* Reported by % of Patients						
		P	M	I	W	E	G	N†
Affective disorders	15	80%	13%	27%	20%	7%	7%	6%
Anxiety disorders	31	94%	6%	23%	16%	6%	16%	6%
Adjustment disorders	16	75%	0%	38%	13%	25%	44%	11%
Somatoform disorders	4	100%	25%	0%	25%	0%	25%	0%
Eating disorders	11	82%	0%	27%	27%	27%	18%	8%
Personality disorders	7	43%	0%	29%	29%	0%	29%	22%
Total	84	82%	6%	26%	19%	12%	21%	8%

NOTE. N = 84, 13 missing data.

*Change types: P = coping with specific problems and symptoms; M = medication issues; I = interpersonal goals; W = well-being and functioning; E = existential issues; G = personal growth; N = no change.

†Total N = 97.

changes of patients in different diagnostic categories. Outcomes of patients in different diagnostic categories showed some statistically significant characteristics with respect to the categories covering symptomatic changes: patients with affective disorders reported more often changes in somatic problems than patients with other disorders (26.7% *v* 7.2%, Fisher's exact test, $P < .05$). Subjects suffering from anxiety disorders reported more most important changes in anxiety symptoms (64.5% *v* 20.8%, Pearson $\chi^2 = 16.1$, $df = 1$, $P < .001$), whereas patients with adjustment disorders reported fewer most important changes in anxiety symptoms (12.5% *v* 42.6%, Pearson $\chi^2 = 5.06$, $df = 1$, $P < .05$), and more most important changes in coping with trauma as compared to other pa-

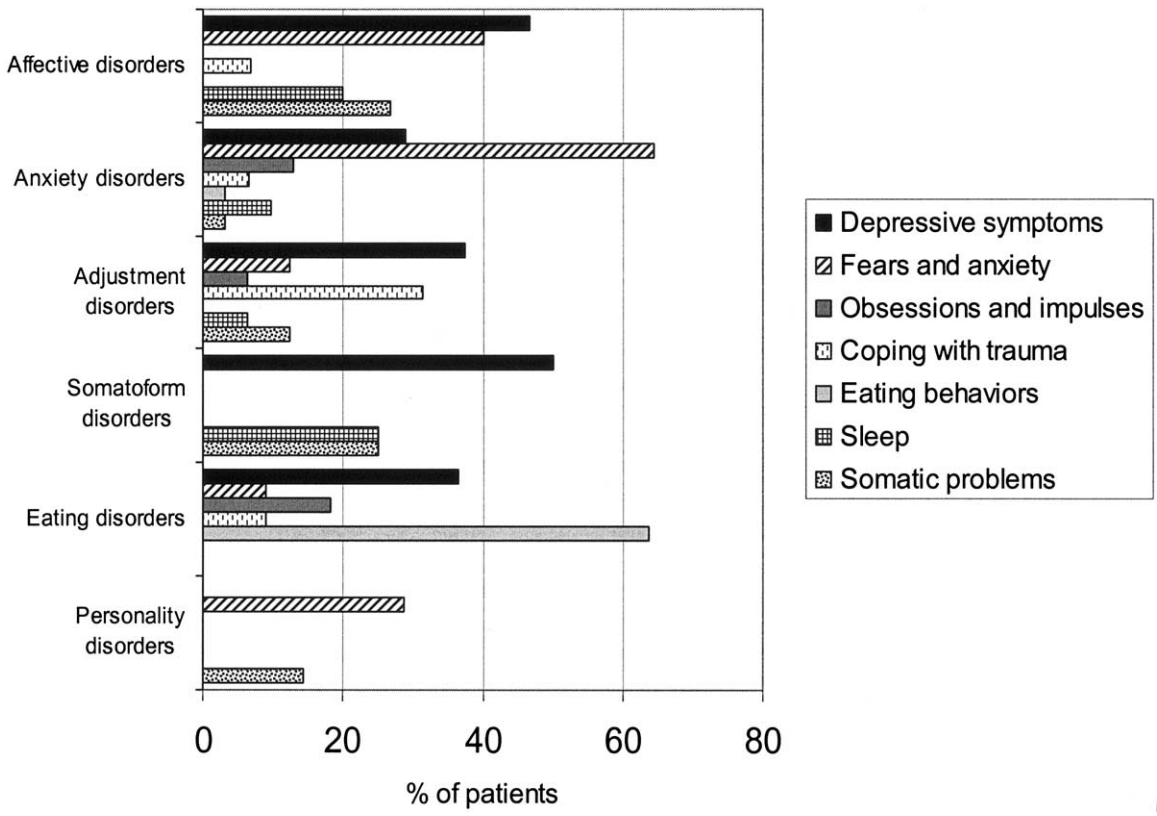

Fig 1. Reports of most important symptom changes by patients in different diagnostic categories.

tients (31.3% *v* 5.9%, Fisher's exact test, $P < .05$). Also eating disordered patients reported fewer most important changes in anxiety symptoms (9.1% *v* 41.1%, Fisher's exact test, $P < .05$). As expected they reported changes in their eating behavior more frequently than patients without eating disorders (63.6% *v* 1.4%, Fisher's exact test, $P < .001$). Patients with somatoform disorders had a tendency to more frequently reporting most important changes with respect to difficulties in specific life domains (50.0% *v* 12.5%, Fisher's exact test, $P = .10$). Patients with personality disorders showed a tendency to report fewer most important changes in depressive symptoms (0% *v* 36.4%, Fisher's exact test, $P = .09$) and reported relatively often no change (22.2% *v* 6.8%, difference not significant [NS]).

Additionally, there were some numerical relations between diagnostic category and categories beyond symptom change: all most important changes with respect to connectedness and intimacy were reported by subjects suffering from anxiety disorders (6.5% *v* 0%, NS). Patients with adjustment disorders tended to report more changes in meaning of life (25.0% *v* 8.8%, Fisher's exact test, $P = .09$), and in attitude toward self than did other patients (25.0% *v* 7.4%, Fisher's exact test, $P = .06$). Eating disordered patients tended to report relatively often changes in meaning of life as most important outcomes (27.3% *v* 9.6%, NS). Finally, patients with personality disorders showed a tendency to report more changes in attitude toward self than patients with axis I disorders (28.6% *v* 9.1%, NS).

Employment Status

Patients without paid work reported more often improvements in the interpersonal domain (39.3% *v* 17.6%, Pearson $\chi^2 = 4.48$, $df = 1$, $P < .05$), tended to report more frequently changes with respect to relationships and loneliness (28.6% *v* 11.8%, Fisher's exact test, $P = .07$), and reported less often important changes in anxiety symptoms (21.4% *v* 47.1%, Pearson $\chi^2 = 5.04$, $df = 1$, $P < .05$), as compared to patients with part-time or full-time work.

Patient Satisfaction

Figure 2 shows the most important changes reported by satisfied and rather dissatisfied patients. Whereas reports of no change and changes in medication issues were associated to dissatisfaction, reported important changes in the interpersonal domain were linked to satisfaction. Additionally, satisfied patients tended to report more often important changes in coping with specific problems and symptoms than dissatisfied patients.

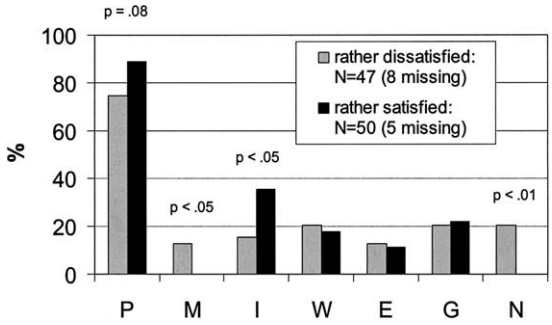

Fig 2. Reports of most important changes in satisfied and dissatisfied patients. P = coping with specific problems and symptoms; M = medication issues; I = interpersonal goals; W = well-being and functioning; E = existential issues; G = personal growth; N = no change. Fisher's exact test was used if expected count was less than 5 in one (25% of four cells) or more cells (M, N), or else Pearson chi-square (P, I).

DISCUSSION

This is an exploratory study, and a number of methodological shortcomings need to be addressed. The recruitment, including all patients with nonpsychotic, non–substance-related disorders who received eight or more sessions of individual psychiatric-psychotherapeutic treatment, provided a heterogeneous sample with regard to psychopathology and psychosocial functioning. Patients were assessed at different time points (9 to 21 months after the end of treatment). Treatments were not standardized and included both psychotherapy alone and psychotherapy combined with pharmacotherapy. However, this methodology made it possible to compare between diagnostic subgroups and the results may be generalized to similar clinical settings. The response rate of 60% and significant differences between responders and nonresponders reduce the external validity of the investigation. Because of the small sample size the statistical power is low. Finally, due to the cross-sectional design of this study, no inferences can be made about the direction of causality between patient satisfaction and change reports.

Overall, patients recorded on average more than 10 changes in a broad range of change items. Most frequently they reported symptom change, change in well-being, and changes with regard to meaning of life

and to attitude toward self. The relatively frequent report of changes with respect to meaning of life and attitude toward self is in line with the study of Connolly and Strupp.[11] Looking at the reports of most important changes, a quite different result emerged: the reduction of depressive symptoms, fears, and anxiety appeared to be more important than other change categories in the patients' perspectives. However, for patients with personality disorders symptom change was less important compared to patients with axis I disorders.

Treatment Characteristics

Given the rather short duration of the treatments, the frequent improvement in well-being and relevant symptom reduction being correlated with the number of treatment sessions are consistent with Howard's three-phase model of recovery[18] that progresses from subjective well-being to symptom reduction, followed by gains in longstanding behavior patterns that often require more than 6 months of treatment. In addition, outcome reports were associated with the treatment strategy: improvements in well-being and in eating behaviors were more often reported as relevant outcome of psychotherapies than of combined treatments, whereas reports of improved sleep were strongly associated with pharmacotherapy.

Diagnostic Category

As expected, changes in specific symptoms were important depending on the patient's diagnostic category such as reduction of fears in anxiety disorders, and improvement of eating behaviors in eating disorders. In addition, some more integral change categories may be linked to certain disorders: change in connectedness and intimacy was a relatively important outcome for patients with anxiety disorders, while change in attitude toward self was a frequently mentioned important outcome for patients with axis II disorders, and outcome with regard to meaning of life was relatively important for patients with eating disorders. In patients diagnosed with adjustment disorders, coping with trauma, personal growth, and meaning of life appeared to be important outcome dimensions.

Employment Status and Patient Satisfaction

For patients without paid work, outcomes in the interpersonal domain were particularly important. In addition, reports of interpersonal changes were most closely related to satisfaction. Only dissatisfied patients reported medication issues as the most important change. It is not easy to interpret this finding, because pharmacotherapy itself was not related to dissatisfaction, and improvements in pharmacotherapy rated as important outcome were not associated with a lack of important outcomes in other change domains (data not presented).

In conclusion, using methods that extend beyond typical DSM-IV criteria, we have shown that traditional psychiatric concepts continue to be valid in patients' views. Specifically, our data provide evidence that current outcome measures that include mood, anxiety, and fear symptoms cover some of the most important areas for change. However, they might miss relevant therapeutic achievements in some of our patients, particularly in those with personality and adjustment disorders that are not exclusively defined by psychopathological symptoms. In these patients, Ryff's Psychological Well-Being inventory[19] or the Beck Self-Esteem Scales[20] may record important changes not covered by traditional measures. Secondly, our data support the call to add outcome measures to standardized outcome instruments that are customized to patient characteristics. In patients with potentially life-threatening conditions such as eating disorders, the importance of outcomes concerning existential issues is self-explanatory; in patients without paid work, social support may be important. Third, treatment strategy seems to influence the domains of relevant outcomes, and therefore outcome measures should correspond to the applied treatments. Forth, the interpersonal domain appeared to be of particular subjective relevance and should be generally included in outcome assessments. This study encourages further, methodologically more sophisticated investigations into the assessment of clinically significant change.

REFERENCES

1. Hansson L. Outcome assessment in psychiatric service evaluation. Soc Psychiatry Psychiatr Epidemiol 2001;36:244-248.

2. Kazdin AE. The meanings and measurement of clinical significance. J Consult Clin Psychol 1999;67:332-339.

3. Stout RL, Dolan R, Dyck I, Eisen J, Keller MB. Course

of social functioning after remission from panic disorder. Compr Psychiatry 2001;42:441-447.

4. Wells KB. Treatment research at the crossroads: the scientific interface of clinical trials and effectiveness research. Am J Psychiatry 1999;156:5-10.

5. Pekarik G, Wolff CB. Relationship of satisfaction to symptom change, follow-up adjustment, and clinical significance. Prof Psychol Res Pract 1996;27:202-208.

6. Lenze EJ, Dew MA, Mazumdar S, Begley AE, Cornes C, Miller MD, et al. Combined pharmacotherapy and psychotherapy as maintenance treatment for late-life depression: effects on social adjustment. Am J Psychiatry 2002;159:466-468.

7. Thase ME, Rush AJ, Manber R, Kornstein SG, Klein DN, Markowitz JC, et al. Differential effects of nefazodone and cognitive behavioral analysis system of psychotherapy on insomnia associated with chronic forms of major depression. J Clin Psychiatry 2002;63:493-500.

8. Michelson D, Lydiard RB, Pollack MH, Tamura RN, Hoog SL, Tepner R, et al. Outcome assessment and clinical improvement in panic disorder: evidence from a randomized controlled trial of fluoxetine and placebo. The Fluoxetine Panic Disorder Study Group. Am J Psychiatry 1998;155:1570-1577.

9. Sotsky SM, Glass DR, Shea MT, Pilkonis PA, Collins JF, Elkin I, et al. Patient predictors of response to psychotherapy and pharmacotherapy: findings in the NIMH Treatment of Depression Collaborative Research Program. Am J Psychiatry 1991;148:997-1008.

10. Faller H, Gossler S. Probleme und Ziele von Psychotherapiepatienten. Psychother Psychosom Med Psychol 1998; 48:176-186.

11. Connolly MB, Strupp HH. Cluster analysis of patient reported psychotherapy outcomes. Psychother Res 1996;6:30-42.

12. Epstein SA, Gonzales JJ, Stockton P, Goldstein DM, Green BL. Functioning and well-being of patients in a consultation-liaison psychiatry clinic. Gen Hosp Psychiatry 1996;18: 3-7.

13. Dilling H, Mombour W, Schmidt MH. Internationale Klassifikation psychischer Störungen. ICD-10 Kapitel V (F). Klinisch-diagnostische Leitlinien. Bern, Switzerland: Verlag Hans Huber, 2000.

14. Grosse Holtforth M, Grawe K. Bern Inventory of Treatment Goals: part 1. Development and first application of a taxonomy of treatment goal themes. Psychother Res 2002;12: 79-99.

15. Hasler G, Mörgeli HP, Grosse Holtforth M, Buddeberg C. Erfassung von Veränderungen in psychiatrisch-psychotherapeutischen Kurztherapien aus Sicht der Patienten. Z Klin Psychol Psychiatr Psychother 2002;50:91-100.

16. Larsen DL, Attkisson O, Hargreaves WA, Nguyen TD. Assessment of client/patient satisfaction: development of a general scale. Eval Program Planing 1980;2:197-207.

17. Hannöver W, Dogs CP, Kordy H. Patientenzufriedenheit—ein Mass für Behandlungserfolg? Psychotherapeut 2000; 45:292-300.

18. Howard KI, Lueger RJ, Maling MS, Martinovich Z. A phase model of psychotherapy outcome: causal mediation of change. J Consult Clin Psychol 1993;61:678-685.

19. Ryff CD, Singer B. Psychological well-being: meaning, measurement, and implications for psychotherapy research. Psychother Psychosom 1996;65:14-23.

20. Beck AT, Brown GK, Steer RA, Kuyken W, Grisham J. Psychometric properties of the Beck Self-Esteem Scales. Behav Res Ther 2001;39:115-124.