An Outcome Study of Psychotherapy for Patients With Borderline Personality Disorder

Janine Stevenson, M.B., B.S., F.R.A.N.Z.C.P.,
and Russell Meares, M.D., F.R.A.N.Z.C.P., F.R.C.Psych.

Objective: *This study evaluated the effectiveness of well-defined outpatient psychotherapy for patients with borderline personality disorder.* *Method:* *Thirty patients with borderline personality disorder diagnosed according to the* DSM-III *criteria were given twice weekly outpatient psychotherapy for 12 months by trainee therapists who were closely supervised. The treatment approach was based on a psychology of self (this term being used in its broad sense), and strong efforts were made to ensure that all therapists adhered to the treatment model. Outcome measures included frequency of use of drugs (both prescribed and illegal), number of visits to medical professionals, number of episodes of violence and self-harm, time away from work, number of hospital admissions, time spent as an inpatient, score on a self-report index of symptoms, and number of* DSM-III *criteria (weighted for frequency, severity, and duration) fulfilled.* *Results:* *The subjects showed statistically significant improvement from the initial assessment to the end of the year of follow-up on every measure. Moreover, 30% of the subjects no longer fulfilled the* DSM-III *criteria for borderline personality disorder. This improvement had persisted 1 year after the cessation of therapy.* *Conclusions:* *The results suggest that a specific form of psychotherapy is of benefit for patients with borderline personality disorder.*

(Am J Psychiatry 1992; 149:358–362)

Until comparatively recently, no treatment was available for persons with severe personality disorder. Individuals so badly damaged were considered "unanalyzable." However, over the last two decades, methods of treating borderline and narcissistic personalities have been steadily evolving. The aim of this project was to evaluate the effectiveness of an identifiable form of psychotherapy, conducted by trainee therapists working under close supervision, in the management of outpatients with borderline personality disorder. As far as we are aware, this report describes the first prospective study of this kind.

THE STUDY

A group of patients with severe personality disorder were given psychotherapy for 12 months, at two sessions per week. Measures were taken to assess the patients before, during, and after treatment.

Received March 27, 1990; revision received July 22, 1991; accepted Aug. 29, 1991. From the Department of Psychiatry, Westmead Hospital. Address reprint requests to Dr. Meares, Department of Psychiatry, Westmead Hospital, Darcy Road, Westmead, New South Wales 2145, Australia.

Supported by a New South Wales Institute of Psychiatry research grant to Dr. Stevenson.

The authors thank Prof. D. Newell for assistance with the statistical analysis.

Treatment Model

We made considerable efforts to develop a coherent, consistently applied, and identifiable treatment approach. It was based on the notion that borderline personality disorder is a consequence of a disruption in the development of the self. The principal assumption is that a certain kind of mental activity, found in reverie and underlying symbolic play, is necessary to the generation of the self. This kind of mental activity is nonlinear, associative, and affect laden. In early life its presence depends on a sense of "union" with caregivers, in which they are experienced as extensions of the developing individual's subjective life (1, p. 243). Development is disrupted through repeated "impingements" of the social environment, which have an impact on the child rather like that of a loud noise. This effect arises through actual stimuli (abuse of various kinds is common in the early lives of borderline patients [3–5]), through high anxiety, and through responses that do not connect with the child's immediate reality and so seem to come from "outside."

The aim of therapy is maturational. Specifically, it is to help the patient discover, elaborate, and represent a personal reality (6), i.e., a reality that relates to an inner life

and that has an affective core (7). The first task is to establish the enabling atmosphere in which the generative mental activity can arise. In order to do so, the therapist must imaginatively immerse himself or herself in the embryonic inner life of the patient. Empathy, however, inevitably fails. The second main task of the therapist is to detect these failures, to focus with the patient on his or her experience at the moment of the failures, and then to allow these experiences to be the starting point of experiential explorations. Such empathic failures, or disjunctions, are indicated by 1) negative affect (e.g., deadness, anxiety), 2) linear thinking, 3) an orientation toward events and the outer world, 4) a change in self state (e.g., devaluing, grandiose), and 5) emergence of transference phenomena (8). An illustrative therapy session, which includes a further description of the treatment method, is reproduced elsewhere (9).

This therapeutic approach was influenced by Robert Hobson's work with borderline patients at the Bethlehem Royal Hospital, London, during the 1960s (10). The theoretical framework includes essential elements from the work of Kohut (11) and Winnicott (12). The model is consistent with Pine's description of the "borderline-child-to-be" (13).

Whether therapists adhere to the therapeutic model is a major problem in psychotherapy outcome research. In this project, the problem was approached in three main ways. First, all therapists were given instruction in the method by means of weekly seminars. Second, all therapy sessions were audiotaped and replayed with a supervisor once a week. In this way, the supervisor could make judgments about adherence to the model and suggest alterations of therapists' behavior. Third, in order to achieve maximum uniformity of approach, supervisors, on occasion, supervised together.

Ideally, a manual that defines therapeutic behavior is used to establish adherence, in the manner of Luborsky (14). This might be done by independent judges rating transcripts, which facilitates replication studies and also matching of outcome against the treatment model. However, in this case such a process is complex, since the therapeutic field is "intersubjective" (15). The therapeutic response cannot be judged as "correct" before it is made. Its suitability is evident only after it has been made. For example, a patient who had spent much of his early life in an orphanage and who could not remember anything before the age of 10 began a session by announcing that his girlfriend was pregnant. This appeared to be "no problem," since she would get an abortion. After a few connecting sentences, the patient, showing little affect, went on to say that he wondered whether some early memories were beginning to be recovered, since he had had "images" of himself as a terrified child being dragged from under a bed, presumably to be taken to the orphanage. The therapist then remarked that the forthcoming abortion seemed to have triggered feelings relating to his being "gotten rid of" by his own mother. The patient said, "Good point," in a rather pompous voice. He then recounted, without any apparent reason, successive incidents in which he had been physically attacked and injured; had been humiliated after revelation of an emotional state; had felt "paranoid"; and had been enraged. A disjunction was signaled by the change from inner concerns ("images") to outer events, by the affect which escalated from agitation to anger, and by the alteration in self state indicated by the pompous voice. It is apparent that the therapist's response was sensed as an intrusion (16). In one sense it was "correct," in that it was accurate; in another it was not, since it produced a disjunction. The "correct" subsequent response is to explore the effect of the first response. This requires skill, since it may be sensed as a second intrusion.

A second difficulty in rating transcripts is that the nuances of the interchange are often reflected in changes in voice, which are a matter of subjective judgment. In the incident just described, for example, the change of voice at "Good point" was not noticed by the therapist.

Despite these problems, a linguistic analysis of transcripts, based on Halliday's systemic grammar (17), is underway in order to provide data for a future manual that will address a limited range of therapeutic issues.

Subjects

Patients were referred by psychiatrists, allied health professionals, community clinics, and inpatient units, and some were self-referred. Eighty-five consecutive patients were rated by three independent psychiatrists according to the *DSM-III* criteria for borderline personality disorder in a diagnostic interview that included the Diagnostic Interview for Borderline Patients (18). They were then seen by a consultant psychotherapist who made a diagnosis of borderline personality disorder on dynamic grounds. Potential subjects were also required to display persisting social dysfunction (e.g., unemployment for more than 12 months, absence of or severely dysfunctional interpersonal relationships, antisocial behavior). Sixty-seven patients fulfilled these criteria. All 67 had previously been unsuccessfully involved in other forms of therapy for a period of not less than 6 months.

Eight of these patients were considered unsuitable for psychotherapy for the following reasons: borderline intellectual retardation (N=2), language difficulty (N=2), antisocial and uncontrollable violent behavior (N=1), and failure to keep three consecutive appointments (N=3). Fifty-nine potential subjects now remained.

After the course of treatment was explained, 11 patients declined treatment or accepted but failed to keep further appointments. At this stage written consent was obtained from the remaining 48 patients, all initial assessments were performed, an appointment was made for an interview with a close friend or relative of each patient, and the patient was assigned to a therapist. After 6 months of therapy and at the conclusion of therapy, further assessments were performed. During the 12 months, eight patients dropped out of therapy, mostly in the first 3 months, before a firm relationship had been established with the therapist. This left 40 pa-

tients who completed 12 months of therapy. (Seven of these elected to continue therapy for a longer time and so were excluded from the present study. They were doing well. The decision to omit them was on the grounds that they had not terminated and that their current state might seem to inflate the value of the treatment.) It was explained to the 33 patients who completed the 12-month course of therapy that they would be contacted a year later "to see how they were doing." Of these 33 patients, three could not be contacted. Thus, of the 48 patients who accepted therapy, 37 completed all assessments. Seven continued therapy and were excluded from the present study. The remaining 30 patients are the subject of this article.

Therapists and Supervisors

The 20 therapists were relatively untrained in psychotherapy, since they were trainee psychiatrists (1–3 years of psychiatry training, 1–2 years of postgraduate medical training), registered nurses, and psychologists. They were young (average age=30.6 years—close to the average age of the patients), 12 were single and eight were married, and 11 were male and nine female. Six had postgraduate qualifications.

Although the supervisors had different training experiences, they developed fairly consistent supervisory behavior. Two were trained by Robert Hobson, a third was a psychoanalyst trained in London, a fourth was oriented toward Sullivan's interpersonal psychology, and two others were oriented toward Kohut's self psychology.

METHOD

Demographic data—age, sex, occupation, partner's occupation, marital status, education, physical health, place of residence, parent's or surrogate parent's occupation, and country of origin—were collected on all subjects. (A large number of patients had been adopted, placed in foster homes, or institutionalized early in life.)

The number of *DSM-III* criteria for borderline personality disorder fulfilled by the subject was determined. Each was weighted on the basis of frequency, severity, and duration, and the total score was recorded. (A number of patients also fulfilled the *DSM-III* criteria for other personality disorders, such as schizotypal, histrionic, narcissistic, and antisocial.) No modifications were made following publication of *DSM-III-R,* since the criteria were essentially unchanged.

The Cornell Index (19) provided a self-report rating of symptoms. An initial measure was taken to assess severity of dysfunction and as a baseline for later comparison. This index is generally used for quite disabled patients. Consequently, it was considered more suitable for our population of subjects than instruments used for neurotic patients. Measures were taken at the initial assessment, after 6 months of therapy, after 12 months of therapy, and at follow-up 12 months later.

Objective behavioral measures were collected en bloc for the entire year preceding and for the year following therapy. They included amount of time away from work (in months), use of medical facilities (number of outpatient visits to a medical facility each month), quantity of drugs (prescribed and illegal) used on a daily basis, self-destructive behavior and outwardly directed violence (number of episodes over a 12-month period), and number of hospital admissions and time spent as an inpatient (in months). Information was obtained from the patient, friends or relatives, medical records, and referral sources. Such methodology reduces errors that may be inherent in the patient's own report. All assessments were performed by the research psychiatrist (J.S.), who was not involved in the therapy process.

The MINITAB data analysis software was used to analyze results. Paired t tests were used to explore the differences between the independent variables before and after therapy, followed by post hoc Bonferroni adjustments of alpha levels.

RESULTS

The mean age of the subjects was 29.4 years (SD=7.9). Nineteen were female and 11 male. Nine were married. Only three had not completed junior high school; six had undertaken college studies. Eight subjects had received long-term institutional or foster care. None had serious medical problems. Twenty-two (73.3%) were receiving government financial assistance (sickness benefits, invalid pension, unemployment benefits, etc.). The remaining eight worked erratically in various nonskilled (N=2), skilled (N=3), and professional (N=3) occupations. Only two owned their own homes; the remainder were renting privately, living with friends or relatives, or in government housing.

There was a significant reduction in the number of *DSM-III* criteria fulfilled at follow-up (mean=10.50) compared with pretreatment (mean=17.40) (table 1). The most frequently observed changes were reductions in impulsivity, affective instability, anger, and suicidal behavior. It is also noteworthy that at follow-up, only 70% (N=21) of the 30 subjects fulfilled the *DSM-III* criteria for borderline personality disorder, compared with 100% before treatment.

There was a marked and statistically significant improvement on all seven objective behavioral measures over the 12 months following therapy compared with the 12 months before therapy when pretreatment scores were compared with follow-up scores (table 1); for example, medical office visits dropped to only one-seventh of pretreatment rates (3.50 to 0.47 per patient per month), and self-harm and drug use dropped to one-fourth of pretreatment rates.

Cornell Index scores had dropped significantly 12 months after treatment when compared with pretreatment levels (table 1); the rate of change over the 2 years was approximately linear (mean scores at 0, 6, 12, and 24 months were 42.63, 41.00, 33.60, and 28.63).

TABLE 1. Scores of 30 Patients on Behavioral Measures, the Cornell Index, and *DSM-III* Criteria for Borderline Personality Disorder for the 12 Months Preceding and Following Psychotherapy

Measure	One Year Before Therapy		One Year After Therapy		Paired t Test	
	Mean	SD	Mean	SD	t (df=29)	p
Violent behavior (episodes per year)	2.70	4.05	0.80	1.80	3.69	<0.001
Drugs used (number per day)	3.80	3.42	0.63	0.80	5.05	<0.001
Medical visits (number per month)	3.50	2.75	0.47	0.57	6.16	<0.001
Self-harm (episodes per year)	3.77	4.66	0.83	1.18	3.82	<0.001
Time away from work (months per year)	4.47	4.10	1.37	2.57	4.90	<0.001
Hospital admissions (number per year)	1.77	1.52	0.73	1.02	3.03	<0.01
Time as an inpatient (months per year)	2.87	2.33	1.47	1.87	2.73	<0.05
Cornell Index[a] score (at end of year)	42.63	14.90	28.63	13.35	5.68	<0.001
DSM-III score[b] (at end of year)	17.40	2.87	10.50	5.08	7.48	<0.001

[a]A self-report rating of symptoms.
[b]Number of criteria for borderline personality disorder (weighted for frequency, severity, and duration) fulfilled by subject.

DISCUSSION

Thirty patients with the diagnosis of borderline personality disorder were treated for 12 months. They showed significant symptomatic and behavioral improvement. Moreover, 30% no longer fulfilled the *DSM-III* criteria for borderline personality disorder. Improvement was maintained at follow-up 12 months later. These findings suggest that a specific form of therapy, supervised in a focused and coherent way, is helpful to a group of people who, most studies report, "do not fare well at follow-up" (20).

Studies of the management of borderline personality disorder have been criticized on the grounds that diagnostic criteria are not clear, outcome measures are relatively subjective, designs are retrospective rather than prospective, and there are no control measures (21). In this study we attempted to overcome these problems. The patients were carefully diagnosed according to *DSM-III*, the outcome measures were objective, and the study was prospective. The principal difficulty, however, concerned the method of control; we used control measures rather than control subjects.

No sensible or ethical solution to the problem of control subjects was evident to us. Ideally, a "placebo" therapy would be compared with the treatment model, in the manner of pharmacotherapy studies. The control subjects would spend the same amount of time as the other patients in sessions with a therapist. The therapist, however, blind to these circumstances, would be instructed by a supervisor to make interventions likely to have no therapeutic effect. Such a design seemed unacceptable from several points of view, including the communal. The clinic is the only one of its kind. The expectation of referral sources was that their patients, who had usually already received extensive and various treatments including drugs and ECT, would receive a "different" therapy, specially geared toward patients with severe personality disorders. Attempts to assign patients to treatments they had previously encountered resulted in these patients' dropping out. An alternative, the use of patients on the waiting list as control subjects, is impracticable with such an unstable population. On the other hand, since personality disorder is relatively enduring, comparisons between different periods of the patients' lives offer a suitable means of obtaining a control. Thus, 1 year of the patients' lives before treatment was compared with 1 year after.

This study cannot be compared with most others in this area, since they usually concern inpatients and are retrospective. Tucker et al. (20), however, reported on a prospective study of inpatients, the results of which, over 2 years, were favorable.

Of particular interest in the present study is the finding that patients were able to terminate treatment and maintain their improvement. Alternative explanations for the good outcome did not seem plausible. Those that were considered included spontaneous remission, a ceiling effect, selective attrition, and intercurrent therapy.

Spontaneous remission seemed an unlikely explanation for the results. In a previous study of psychotherapy outcome, a period of 6 months with continuous symptoms was used to differentiate patients with chronic illness from those whose illness remitted (H. Brodaty, unpublished doctoral thesis, 1985). All patients in our trial had continuous symptoms for 12 months, the majority for many years.

A second possible explanation for the improvement of our patients might be a so-called ceiling effect. Put another way, were the patients so disturbed that they could deteriorate no further? The histories of our patients did not support this possibility. For example, many had had inpatient treatment, but no patient entered the trial at one of these periods of crisis.

The possibility that selective patient attrition distorted the results of this study was not supported. There was no evidence that the more disturbed patients had dropped out. Comparisons were made between trial subjects and dropouts on demographic data (age, sex, occupation, social class, etc.), Cornell Index scores, fulfillment of *DSM-III* criteria, and behavioral measures. No significant differences were found on any measure. There was a tendency for the dropouts to live farther from the treatment center, although this difference did not reach statistical significance. Furthermore, the

dropout rate was low—16%—compared with the rates in previous studies (22, 23).

Finally, any intercurrent treatments were carefully monitored in this study. On entering the trial, all patients had their medications gradually withdrawn. Hypnotics and minor tranquilizers were given to a minority of patients on occasion and to patients who needed hospitalization. Those few patients who needed hospital admission during therapy, usually during a crisis, continued to receive psychotherapy, while the ward provided a supportive, containing environment, but no other "treatment" was given. At each assessment interview interviewers asked about intercurrent treatment, appointments with other doctors, and alternative therapies. Little evidence of these was found. One patient who continued to see a previous therapist and who received medications from him eventually dropped out. Most patients had more or less exhausted other treatment options before referral into our trial.

In conclusion, this report suggests that a specific form of psychotherapy is of benefit for borderline patients. All patients will be followed up at 5 and 10 years. The cost effectiveness of treatment and aspects of the therapeutic process that are related to change are the basis for subsequent reports.

REFERENCES

1. Piaget J: The Language and Thought of the Child. London, Routledge & Kegan Paul, 1959
2. Winnicott DW: The Maturational Processes and the Facilitating Environment. New York, International Universities Press, 1960
3. Herman JL, Perry JC, van der Kolk BA: Childhood trauma in borderline personality disorder. Am J Psychiatry 1989; 146: 490–495
4. Ludolph PS, Westen D, Misle B, Jackson A, Wixom J, Wiss FC: The borderline diagnosis in adolescents: symptoms and developmental history. Am J Psychiatry 1990; 147:470–476
5. Zanarini M, Gunderson J, Marino F, Schwartz E, Frankenburg F: Childhood experiences in borderline patients. Compr Psychiatry 1989; 30:18–25
6. Meares R: The secret and the self: on a new direction in psychotherapy. Aust NZ J Psychiatry 1987; 21:545–559
7. Emde R: The pre-representational self and its affective core. Psychoanal Study Child 1983; 38:165–192
8. Meares R: The fragile Spielraum: an approach to transmuting internalization, in Progress in Self Psychology, vol 6: The Realities of Transference. Edited by Goldberg A. Hillsdale, NJ, Analytic Press, 1990
9. Meares R: Transference and the play space: towards a new basic metaphor. Contemporary Psychoanal (in press)
10. Hobson RF: Forms of Feeling: The Heart of Psychotherapy. London, Tavistock Publications, 1985
11. Kohut H: How Does Analysis Cure? Contributions to the Psychology of the Self. Edited by Goldberg A, Stepansky P. Chicago, University of Chicago Press, 1984
12. Winnicott DW: Playing and Reality. London, Tavistock Publications, 1971
13. Pine F: On the development of the "borderline-child-to-be." Am J Orthopsychiatry 1986; 56:3:450–457
14. Luborsky L: Principles of Psychoanalytic Psychotherapy: A Manual for Supportive-Expressive Treatment. New York, Basic Books, 1984
15. Stolorow RD, Brandchaft B, Atwood GE: Psychoanalytic Treatment: An Intersubjective Approach. Hillsdale, NJ, Analytic Press, 1987
16. Meares R: The secret, lies and the paranoid process. Contemporary Psychoanal 1988; 24:650–666
17. Halliday M: An Introduction to Functional Grammar. London, Arnold, 1985
18. Gunderson JG, Kolb JE, Austin D: The Diagnostic Interview for Borderline Patients. Am J Psychiatry 1981; 138:896–903
19. Weider A, Wolff H, Brodman K, Mittelman B, Wechsler D: Cornell Index. New York, Psychological Corp, 1948
20. Tucker L, Bauer SF, Wagner S, Harlam D, Sher I: Long-term hospital treatment of borderline patients: a descriptive outcome study. Am J Psychiatry 1987; 144:1443–1448
21. Aronson T: A critical review of psychotherapeutic treatments of borderline personality. J Nerv Ment Dis 1989; 177:511–528
22. Waldinger R, Gunderson J: Completed psychotherapies with borderline patients. Am J Psychother 1984; 38:190–201
23. Gunderson J, Frank A, Ronningstam E, Wachter S, Lynch V, Wolf P: Early discontinuance of borderline patients from psychotherapy. J Nerv Ment Dis 1989; 177:38–42