When and how perfectionism impedes the brief treatment of depression: Further analyses of the NIMH TDCRP

Sidney J. Blatt, Yale University
David C. Zuroff, McGill University
Colin M. Bondi, Yale University
Charles A. Sanislow, Yale University
Paul A. Pilkonis, University of Pittsburgh - Main Campus
When and How Perfectionism Impedes the Brief Treatment of Depression: Further Analyses of the National Institute of Mental Health Treatment of Depression Collaborative Research Program

Sidney J. Blatt
Yale University

David C. Zuroff
McGill University

Colin M. Bondi and Charles A. Sanislow III
Yale University

Paul A. Pilkonis
University of Pittsburgh

Perfectionism has previously been identified as having a significant negative impact on therapeutic outcome at termination in the brief (16-week) treatment of depression (S. J. Blatt, D. M. Quinlan, P. A. Pilkonis, & T. Shea, 1995) as measured by the 5 primary outcome measures used in the National Institute of Mental Health Treatment of Depression Collaborative Research Program (TDCRP). The present analyses of other data from the TDCRP indicated that this impact of perfectionism on therapeutic outcome was also found in ratings by therapists, independent clinical evaluators, and the patients and that this effect persisted 18 months after termination. In addition, analyses of comprehensive, independent assessments made during the treatment process indicated that perfectionism began to impede therapeutic gain in approximately 2/3 of the sample, in the latter half of treatment, between the 9th and 12th sessions. Implications of these findings are discussed, including the possibility that more perfectionistic patients may be negatively impacted by anticipation of an arbitrary, externally imposed termination date.

The Treatment of Depression Collaborative Research Program (TDCRP) sponsored by the National Institute of Mental Health was a well-designed, carefully conducted, randomized clinical trial that compared cognitive-behavioral therapy and interpersonal therapy with imipramine plus clinical management as a standard reference and with pill-placebo plus clinical management as a double-blind control. Two hundred and thirty-nine seriously depressed outpatients were randomly assigned to one of these four brief treatments, and comparisons indicated few substantial differences in therapeutic change among patients in the four treatment groups (Elkin et al., 1989; Imber et al., 1990). Imipramine plus clinical management and interpersonal therapy appeared to be marginally (p < .05) more effective than cognitive-behavioral therapy, but only with more seriously depressed patients (Elkin et al., 1989).

Further analyses of the TDCRP data also indicated that therapeutic outcome at termination was significantly related to patients' pretreatment levels of perfectionism or self-criticism (Blatt, Quinlan, Pilkonis, & Shea, 1995), as measured by one of two factors (Imber et al., 1990) of the Dysfunctional Attitudes Scale (DAS; A. N. Weissman & Beck, 1978). Pretreatment perfectionism significantly (p = .02 to .004) predicted poorer...
outcome at termination, as assessed by residualized gain scores of the five primary outcome measures in the TDCRP: an interview and a self-report measure of depression (the Hamilton Rating Scale for Depression [HRSD; Hamilton, 1960, 1967] and the Beck Depression Inventory [BDI; Beck & Beamesderfer, 1974; Beck, Ward, Mendelson, Mock, & Erbaugh, 1960], respectively), an interview and a self-report measure of general clinical functioning (the Global Adjustment Scale [GAS; Endicott, Spitzer, Fleiss, & Cohen, 1976] and the Hopkins Symptom Checklist [HSCL-90; Derogatis, Lipman, & Covi, 1973], respectively), and an interview assessment of social functioning using the Social Adjustment Scale (SAS; M. M. Weissman & Paykel, 1974). Factor analysis of these five residualized change scores at termination revealed that all five measures loaded substantially (> .79) on a single factor with an eigenvalue of 3.78, accounting for 75.6% of the variance (Blatt, Zuroff, Quinalan, & Pilkonis, 1996). No other eigenvalue approached 1.0, indicating that this factor was a consistent composite measure of therapeutic gain. Pretreatment perfectionism significantly \((p < .0001)\) predicted this composite factor at termination, independent of treatment condition. The other DAS factor, Need for Approval, had only marginal, but consistently positive, relationships with the five primary outcome measures; the relationships between pretreatment Need for Approval and the composite residualized outcome factor at termination was not significant \((p = .114)\).

These five primary measures of therapeutic gain as well as a number of ratings by therapists, independent clinical evaluators, and patients were obtained at various points during the treatment process (4, 8, 12, and 16 weeks) and follow-up (6, 12, and 18 months after termination). Therapists and clinical evaluators rated patients’ progress at various points during treatment and at termination. Patients also rated their therapeutic progress at termination. In addition, patients and clinical evaluators rated current level of functioning and degree and nature of therapeutic gain at the follow-up assessments (therapists did not participate in the follow-up assessments).

This article has two primary goals: (a) to evaluate the relationship of pretreatment perfectionism to the additional ratings of treatment effectiveness (cf. Seligman, 1995) made by patients, therapists, and clinical evaluators during treatment, at termination, and during follow-up and (b) to identify when during the treatment process pretreatment perfectionism began to impede therapeutic gain.

Method

Across three research sites, 250 patients were randomly assigned to four treatment conditions: 239 patients began treatment, and 152 patients were defined as completers, having had at least 12 treatment sessions over at least 15 weeks. Treatment conditions consisted of pill-placebo plus clinical management, and pill-placebo plus clinical management, and the five primary interview and self-report assessment procedures (HRSD, BDI, GAS, HSCL-90, and SAS) have been described in detail in prior reports (e.g., Elkin, 1994; Elkin et al., 1989; Imber et al., 1990; Watkins et al., 1993). Patients met Research Diagnostic Criteria for a current episode of definite major depressive disorder and had a score of 14 or more on an augmented 20-item version of the 17-item HRSD. Of the 239 patients who began treatment, 70% were female, 38% were diagnosed as having definite endogenous depression by Research Diagnostic Criteria, and 64% had at least one prior major depressive episode. Their average age was 35 years, and their average age at first episode of major depression was 26.3 years \((SD = 10.3)\).

Measures

As part of pretreatment evaluation, patients completed the DAS (A. N. Weissman & Beck, 1978), a 40-item inventory of negative cognitions and attitudes that has high internal and test–retest reliability (Dobson & Breiten, 1983; A. N. Weissman & Beck, 1978). Because the two DAS factors, need for approval and perfectionism, were significantly correlated in the total sample \((r = .59, p < .01)\), and yet are related to different interpersonal styles (Zuroff & Fitzpatrick, 1995), these two variables were residualized to remove their shared variance. Using regression procedures, need for approval was residualized on perfectionism and vice versa, yielding purified measures of need for approval and perfectionism to facilitate the evaluation of the differential relationships of these two DAS variables to therapeutic gain. In addition to the composite residualized gain score of the five primary outcome measures at termination and at follow-up, covaried for initial level prior to treatment, other measures of therapeutic gain gathered as part of the TDCRP included ratings by patients, therapists, and clinical evaluators during treatment and follow-up.1

Clinical evaluators, using 7-point Likert scales at termination and follow-up, rated patients’ level of depression, general clinical functioning, social adjustment, as well as the success of treatment and the extent to which they thought the patients experienced therapeutic gain. Clinical evaluators also indicated (yes or no) whether they thought the patients were satisfied with the treatment process and needed further treatment. Clinical evaluators also administered the Change Version of the Schedule of Affective Disorders and Schizophrenia (SADS–C) to assess patients’ clinical condition before treatment; at the 4th, 8th, 12th, and 16th weeks of treatment; and at the 6th, 12th, and 18-month follow-ups. The TDCRP investigators constructed several scales assessing depression and dysthymia from the SADS-C: depressive symptoms, endogenous depressive features, anxiety, and extracted Hamilton. These four scales, however, are not fully independent; the same items often appear on more than one of these scales. To deal with this overlap, we constructed a composite dysthymia scale (COMSADS) based on the sum of the 26 SADS-C items that were included in any one of these four depression scales.2 This measure provided another comprehensive assessment of therapeutic gain at the various assessment points during treatment and follow-up.

Patients, using 7-point Likert scales at termination and follow-up, rated their degree of satisfaction with treatment, treatment’s present condition, and how much they had changed since beginning treatment andsince completing treatment. Patients also rated at follow-up the degree to which treatment helped them in the following specific areas: interpersonal relationships; recognition of depressive symptoms; control of self-critical thoughts; coping with depressive symptoms; changes in depressive attitudes; and facilitation of understanding how their depression was related to rigid attitudes, difficulty with close relationships, and had biological as well as emotional causes.

Therapists, using 7-point Likert scales at termination, rated patients’

---

1 Follow-up evaluations were conducted at 6, 12, and 18 months. Because different patients, to some degree, participated in each of these follow-up assessments, we focused our analysis on the last follow-up assessment at 18 months. The results based on this assessment were consistent with findings from the two prior follow-up assessments at 6 and 12 months.

2 The Manic and Psychotic (Disorganized) scales of the SADS-C were not of primary interest because patients with these tendencies had been excluded from the study during the extensive screening process.
current level of functioning and degree of general clinical change; severity of depression; functioning in work, sexual adjustment, and social, marital, and parental roles; and capacity to cope with personal problems. Therapists also rated how much they liked the patients and indicated (yes or no) whether the patients were satisfied with the treatment and needed further treatment and whether they (the therapists) were satisfied with the treatment. After the 1st treatment session, therapists also described the patients' primary treatment goal and after the 8th and 16th (termination) sessions rated the patients' improvement and the extent to which the patients achieved their primary goal.

Data Reduction

Because therapists and patients made extensive ratings at several assessment points, we consolidated these ratings into composite scores through principal-components factor analysis, using varimax rotation and the scree test. Ratings by therapists after the first treatment session yielded two primary factors: Level of Clinical Functioning (eigenvalue = 2.59) and Prognosis (eigenvalue = 2.10). Ratings by therapists at termination yielded two primary factors: Degree of Clinical Change (eigenvalue = 4.33) and Current Level of Functioning (eigenvalue = 3.61). Ratings by patients at 18-month follow-ups yielded two primary factors: Specific Therapeutic Effects (eigenvalue = 5.18) and Current Clinical Condition (eigenvalue = 3.52).

Results

Perfectionism and Need for Approval and Therapeutic Outcome at Termination

Table 1 presents correlations of pure perfectionism and need for approval with ratings of therapeutic gain at termination by therapists, clinical evaluators, and patients. Consistent with earlier findings (Blatt et al., 1995) based on residualized gain scores of the five primary measures of change (BDI, HRSD, GAS, HSCL-90, and SAS) at termination, pretreatment perfectionism correlated significantly ($p < .01$) with clinical evaluators' ratings at termination of poorer clinical condition and less therapeutic gain. Similar results were obtained with ratings by therapists. Pretreatment perfectionism correlated significantly ($p < .05$) with the first factor (Degree of Clinical Change) derived from therapists' ratings at termination. Patients' ratings also indicated that pretreatment perfectionism was associated with patients' tendency to feel less satisfied with treatment ($p < .10$) and to report significantly ($p < .001$) less therapeutic gain at termination. Thus, ratings by clinical evaluators, therapists, and patients, consistent with earlier findings using the residualized gain scores of the five primary outcome measures (Blatt et al., 1995), indicated that pretreatment perfectionism was significantly associated with diminished therapeutic gain at termination. Pretreatment need for approval, in contrast, did not relate significantly to ratings by clinical evaluators, therapists, or patients at termination.

At termination, clinical evaluators and therapists also rated (yes or no) whether they thought the patients were satisfied with the treatment and needed further treatment. Patients who the clinical evaluators thought were not satisfied with treatment and needed further treatment had significantly higher perfectionism scores, $t(151) = 2.27, p < .05$ and $t(151) = 2.74, p < .01$, respectively. Patients who therapists thought were not satisfied with treatment and who needed further treatment also tended to have higher perfectionism scores, $t(151) = 1.27, n.s.,$ and $t(151) = 1.17, n.s.$, respectively. Therapists also rated their own satisfaction with treatment (yes or no); perfectionism tended to be higher, $t(151) = 1.86, p = .06$, in those patients with whom the therapists felt unsatisfied with the treatment. No significant relationships were found between need for approval and any of these ratings by clinical evaluators and therapists at termination.

Table 1
Correlation of Pretreatment Dysfunctional Attitudes Scale
Pure Perfectionism (PFT) and Need for Approval (NFA)
With Therapeutic Effects at Termination

<table>
<thead>
<tr>
<th>Therapeutic effect</th>
<th>NFA</th>
<th>PFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite residualized gain score$^b$</td>
<td>.07</td>
<td>-.29***</td>
</tr>
<tr>
<td>Therapists' ratings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 1 (Degree of Clinical Change)</td>
<td>-.04</td>
<td>-.16*</td>
</tr>
<tr>
<td>Factor 2 (Current Level of Functioning)</td>
<td>.01</td>
<td>.04</td>
</tr>
<tr>
<td>Clinical evaluators' ratings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Clinical Condition</td>
<td>.04</td>
<td>-.21**</td>
</tr>
<tr>
<td>Degree of Clinical Change</td>
<td>.05</td>
<td>-.24**</td>
</tr>
<tr>
<td>Liking of Patient</td>
<td>.06</td>
<td>-.09</td>
</tr>
<tr>
<td>Patients' ratings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction With Treatment</td>
<td>.07</td>
<td>-.15</td>
</tr>
<tr>
<td>Current Clinical Condition</td>
<td>.00</td>
<td>-.11</td>
</tr>
<tr>
<td>Degree of Therapeutic Change</td>
<td>.03</td>
<td>-.26***</td>
</tr>
<tr>
<td>Change Related to Treatment</td>
<td>.09</td>
<td>-.11</td>
</tr>
</tbody>
</table>

$^a$ Direction of some scales has been changed so that a higher number consistently indicates better functioning. $^b$ Correlation of PFT with each of five primary residualized measures of therapeutic gain included in the composite gain score ranged from $-21 (p < .01)$ to $-29 (p < .001)$. $^c$ The following items had substantial loadings (.50) on the two factors derived from therapists' ratings after the first session: (a) Level of Clinical Functioning—overall clinical condition, social functioning, extent of depressive symptoms, ability to handle personal problems, work functioning, and sexual adjustment and functioning and (b) Prognosis—prognosis, personal liking of patient, and motivation for change. The following items had substantial loadings (.60) on the two factors derived from therapists' ratings at termination: (a) Degree of Clinical Change—change in general clinical condition, work functioning, ability to handle personal problems, social functioning, and depressed symptoms since beginning treatment (also included were ratings of current clinical functioning and severity of depressive symptoms.) and (b) Current Level of Functioning—current social, work, and sexual functioning; ability to handle personal problems; and sexual adjustment and extent of change in sexual adjustment. The following items had substantial loadings (.60) on the two factors derived from patients' ratings at the 18-month follow-up: (a) Specific Therapeutic Effects—degree to which therapy helped establish satisfying relationships, recognize symptoms of depression, develop skills for dealing with relationship problems, keep negative thoughts from leading to depression, cope with symptoms of depression, change attitudes associated with depression, and understand how depression is related to rigid ideas about self and to disturbances in relationships and (b) Current Clinical Condition—current clinical condition and degree of change since beginning treatment and since completing treatment.
Perfectionism and Need for Approval and Therapeutic Outcome at 18-Month Follow-Up

Although perfectionism no longer correlated significantly with the composite residualized gain score at 18-month follow-up \((r = .11, \text{ns})\), perfectionism correlated significantly with less positive clinical conditions as rated by clinical evaluators \((r = .17, p < .05)\) and with patients feeling less satisfied with the treatment process \((r = .23, p < .01)\). Pretreatment perfectionism also correlated significantly \((p < .05)\), in a negative direction, with the degree to which patients thought therapy helped them in several specific areas: establishing satisfying interpersonal relationships; recognizing symptoms of depression; developing interpersonal skills; coping with depressed symptoms; changing their depressed attitudes, including self-critical thoughts; and recognizing how their depression resulted from difficulty in close relationships. Thus, the significant negative relationship between perfectionism and therapeutic gain as reported by patients, clinical evaluators, and therapists at termination persisted into the 18-month follow-up assessment. It is noteworthy that pretreatment perfectionism had a significant negative relationship with the degree to which patients thought therapy helped them understand how their depression resulted from difficulties in close relationships \((r = -.29, p < .001)\), whereas pretreatment need for approval had a significant positive relationship with this item \((r = .26, p < .01)\).

Perfectionism and the Therapeutic Process

Observations obtained during treatment provided the basis for evaluating when perfectionism began to impede therapeutic gain. Perfectionism correlated significantly, in a negative direction, with therapists’ estimate at termination of the degree to which each patient achieved his or her primary treatment goal \((r = -.19, p < .05)\). Earlier in treatment, after the 8th session, however, this relationship was essentially zero \((r = -.02)\). To evaluate further this suggestion that the negative relationship of perfectionism to progress during the treatment process occurs in the latter half of the treatment process, the distribution of pretreatment perfectionism was divided into thirds, defining patients at low, moderate, and high levels. Patients at these three levels of perfectionism were compared on an aggregate measure of maladjustment that had been constructed at each evaluation point during treatment, based on the five primary measures of therapeutic change \((HRSD, BDI, GAS, SAS, \text{and HSCL-90})\).

We calculated \(z\) scores for each of the five variables using the pooled mean and the pooled within-time period standard deviation over the five observation points \((pt \text{pretreatment and after 4, 8, 12, and 16 weeks of treatment})\). An aggregate measure of maladjustment was computed for each observation point by taking the mean of the five \(z\) scores. Cronbach's alpha for the resulting aggregates at the various assessments throughout treatment and follow-up ranged from .88 to .94, except for the pretreatment assessment, when the alpha was .69. Repeated measures analysis of variance \((ANOVA)\) of this measure of maladjustment with one between-subjects variable \((level \text{ of perfectionism})\) and one within-subjects variable \((time: \text{intake, 4 weeks, 8 weeks, 12 weeks, and termination})\) indicated a significant Perfectionism \(\times\) Time interaction, \(F(8, 568) = 3.30, p < .01\), using the Greenhouse–Geisser \((Greenhouse \& Geisser, 1959)\) adjustment. The Perfectionism \(\times\) Time interaction was probed by two additional repeated measures ANOVAs: one including the three time periods from intake to 8 weeks and the other including the three time periods from 8 weeks to termination. No significant Perfectionism \(\times\) Treatment interaction was found in the first analysis, that is, during the first half of treatment. The interaction during the second half of treatment, however, was significant, \(F(4, 284) = 7.81, p < .001\), using the Greenhouse–Geisser adjustment. Thus, as indicated in Figure 1, perfectionism had little effect on therapeutic gain during the first 8 weeks of treatment, but a significant difference emerged during the second half of treatment; low-perfectionism patients continued to improve, whereas moderate and high-perfectionism patients made only very slight additional progress. Another repeated measures ANOVA was conducted on this aggregated maladjustment score at termination and at the three follow-up assessments. The time effect and the Time \(\times\) Perfectionism interaction were not significant, indicating that patients did not change significantly during the follow-up period. At the 18-month follow-up, patients maintained the relative degree of improvement they had achieved at termination, independent of their level of perfectionism.

Similar results were obtained from analyses of the COMSADS derived from the SADS-C interview conducted by clinical evaluators during treatment and follow-up. Results revealed a significant Perfectionism \(\times\) Time interaction, \(F(8, 548) = 2.82, p < .01\), using the Greenhouse–Geisser adjustment. The Perfectionism \(\times\) Time interaction was probed further by two additional repeated measures ANOVAs; one including the three assessments from pretreatment \((rescreening)\) to 8 weeks and the other including the three assessments from 8 weeks to termination. No significant Perfectionism \(\times\) Time interaction was found in the first half of treatment. This interaction, however, was significant during the second half of treatment, \(F(4, 274) = 5.82, p < .001\), using the Greenhouse–Geisser adjustment. Levels of perfectionism had little effect in the first 8 weeks of treatment, but low-perfectionism patients continued to improve significantly in the second half of treatment, whereas moderate and high-perfectionism patients made only slight additional progress. Another repeated measures ANOVA conducted on COMSADS scores at termination and at the 6-, 12-, and 18-month follow-up assessments indicated no differences among the three levels of perfectionism during follow-up. Neither the time effect nor the Perfectionism \(\times\) Time interaction was significant; high- or moderate-perfectionism patients fared no worse than low-perfectionism patients during follow-up.

We tested whether these findings that perfectionism impedes therapeutic gain primarily in the latter half of the treatment process might be a consequence of the severity of depression prior to beginning treatment. Severe depression was defined using the same cutoff points on the HRSD and the GAS as did Elkin et al. (1989). The interaction of severity of depression with time was not significant, and the interaction of perfectionism with time remained significant in the latter half of the treatment process, even after controlling for the interaction of time and severity of depression.
Discussion

Analyses of ratings made by patients, therapists, and clinical evaluators at various points during the treatment process and follow-up evaluations in the TDCRP, consistent with earlier findings based on the five primary residualized measures of gain (Blatt et al., 1995), indicated that pretreatment perfectionism impedes therapeutic change across the four treatment conditions. These negative effects of pretreatment perfectionism were observed across a wide range of ratings of therapeutic progress made by the patients, therapists, and clinical evaluators during treatment, at termination, and at follow-up. These findings not only elaborate earlier findings that perfectionism interferes with therapeutic gain at termination (Blatt et al., 1995) but also demonstrate that the negative impact of perfectionism persists even as late as 18 months after termination, as seen in ratings by clinical evaluators of poorer clinical condition and a need for further treatment and in patients’ ratings of dissatisfaction with treatment (poorer ratings of their current condition and that they had not changed substantially in treatment). Level of pretreatment perfectionism also correlated significantly with patients reporting less specific effects of treatment at the 18-month follow-up (i.e., less satisfying interpersonal relationships, less coping skills, less ability to recognize the symptoms of their depression, less change in their depressive attitudes, and continuing to be self-critical).

Self-criticism and perfectionism are generally associated with difficulty establishing and sustaining interpersonal relationships (Zuroff & Fitzpatrick, 1995) and with dissatisfaction with aspects of oneself, with personal relationships, and with life in general (e.g., Blatt, 1995a; Blatt & Zuroff, 1992). Thus, it is consistent that patients with elevated perfectionism may find their degree of therapeutic change in brief treatment to be insufficient and experience disillusionment with their therapist; the treatment process; and, most of all, their sense that they had failed to meet the high expectations they set for themselves. It is important, therefore, to note that the negative impact of perfectionism on treatment appears not only in ratings by patients but also in ratings by therapists and independent clinical evaluators. Not only do patients with elevated perfectionism feel subjectively less satisfied with what they achieved in treatment, but objectively, as judged by therapists and clinical evaluators, these patients are considered significantly less improved at termination and at follow-up 18 months later.

The present analyses also indicated that the negative impact of perfectionism on treatment outcome began to appear between the 9th and 12th weeks of the 16-week treatments. Progress in treatment was significantly impeded primarily during the second half of the treatment process in patients who were in the upper two-thirds of the distribution of pretreatment perfectionism. These findings have important treatment implications. They indicate that brief 16-week outpatient treatment for depression is not only significantly moderated by pretreatment levels of perfectionism (Blatt, 1995a; Blatt et al., 1995), but that the negative impact of perfectionism occurs primarily in the latter half of the treatment process. Research is needed to understand more fully the experiences of perfectionistic patients during the latter half of the treatment process and how and why perfectionistic attitudes disrupt their therapeutic progress. As patients at
higher levels of perfectionism begin to confront the end of treatment, they may experience a sense of personal failure, dissatisfaction, and disillusionment with the treatment. Analyses of recordings of therapeutic sessions of the TDACP, when they become available, may provide a fuller understanding of the experiences of perfectionistic patients in the latter half of the treatment. Perfectionistic individuals often need to maintain control and preserve their sense of autonomy (Blatt, 1974, 1995b; Blatt & Zuroff, 1992). Thus, one of the factors that might be disrupting the therapeutic progress of perfectionistic patients in the second half of brief treatment for depression may be the unilateral, “abrupt” (Elkin, 1994, p. 134), external imposition of an arbitrary termination date. This interpretation is consistent with findings (Seligman, 1995) that patients report greater therapeutic gain and satisfaction in treatments that are open-ended and do not impose arbitrary limits.

References


Received November 14, 1996
Revision received July 17, 1997
Accepted July 25, 1997