Predictors of dropout from inpatient dialectical behavior therapy among women with borderline personality disorder

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Abstract

Inpatient dialectical behavior therapy (DBT) is an effective treatment for borderline personality disorder (BPD), but often treatment is ended prematurely and predictors of dropout are poorly understood. We, therefore, studied predictors of dropout among 60 women with BPD during inpatient DBT. Non-completers had higher experiential avoidance and trait anxiety at baseline, but fewer life-time suicide attempts than completers. There was a trend for more anger—hostility and perceived stigma among non-completers. Experiential avoidance and anxiety may be associated with dropout in inpatient DBT. Low life-time suicidality and high anger could reflect a subtype at risk for discontinuation of inpatient treatment.

Keywords: Borderline personality disorder; Dialectical behavior therapy; Predictors; Treatment dropout

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1. Introduction

Dialectical behavior therapy (DBT; Linehan, 1993) is an effective treatment for persons with borderline personality disorder (BPD). Originally developed for outpatients with BPD, it was later modified for inpatient settings (Bohus et al., 2000, 2004; Swenson, Sanderson, Dulit, & Linehan, 2001). However, dropout rates are high even in specialized inpatient settings. Twenty-two percent of women with BPD prematurely ended inpatient DBT in a setting identical to the study reported here (Bohus et al., 2004).

Predictors of dropout are poorly understood despite the prevalence and obvious clinical relevance of this phenomenon. Skodol, Buckley, and Charles (1983) found that in outpatients with BPD higher psychopathology at baseline was related to early treatment dropout. In a study by Gunderson et al. (1989) dropout from inpatient treatment was associated with less baseline psychopathology, less prior psychiatric treatment and fewer suicidal thoughts. Further, high anger and impulsivity were related to early dropout in BPD (Heinssen & McGlashan, 1988). It should be noted, however, that these studies differed not only in terms of inpatient versus outpatient settings but also comprised heterogeneous psychotherapeutic treatments so that conclusions to inpatient DBT should be drawn with caution. Our study, therefore, aimed to examine predictors of dropout identified in those previous studies and their relevance for inpatient DBT.

In recent psychotherapy research, increasing attention has been paid to the concept of experiential avoidance (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). This phenomenon occurs when a person is unwilling to remain in contact with particular private experiences (bodily sensations, emotions, thoughts, etc.) and takes steps to alter the form or frequency of these experiences or the contexts that occasion them, even when these forms of avoidance cause behavioral harm (Hayes et al., 2004). Avoidance of such private experiences may be a major obstacle for successfully engaging in psychotherapy, and, therefore, high experiential avoidance is likely to be associated with therapy dropout. In BPD, deliberate self-harm, a key symptom of this disorder, may function to avoid unwanted emotional experiences (Chapman, Gratz, & Brown, 2006). This is in line with recent data indicating that acceptance-based interventions are effective in BPD (Gratz & Gunderson, 2006). Further, in women with BPD experiential avoidance is associated with proneness to dysfunctional emotions such as anxiety (Rüsch, Corrigan, Bohus, Jacob, et al., 2007). We, therefore, expected that in addition to experiential avoidance anxiety is related to premature termination of therapy.

Additional variables are likely related to premature termination of treatment in BPD. Fear of stigma, perceived discrimination and labeling as “mentally ill” (Rüsch, Angermeyer, & Corrigan, 2005) can lead to ending treatment prematurely since persons with mental illness often try to avoid the negative labeling resulting from psychiatric or psychotherapeutic treatment (Corrigan & Rüsch, 2002). This has been shown for persons with depression (Sirey et al., 2001), but has not been studied in individuals with BPD so far.

We, therefore, wanted to test the hypothesis that high levels of anxiety, anger—hostility, experiential avoidance and perceived stigma as well as current psychopathology and key variables of the clinical history such as the number of life-time suicide attempts and hospitalizations are related to early discontinuation of inpatient DBT.
2. Methods

2.1. Participants

Sixty women with BPD were recruited at the Department of Psychiatry and Psychotherapy, University of Freiburg, Germany, and at the Department of Psychiatry, Meissenberg, Zug, Switzerland, and were assessed one week after voluntary admission to an open ward for a structured 12-week inpatient program of DBT (for more details see Bohus et al., 2004). Typically, patients were admitted because of frequent self-injuries or severe emotional instability and anger attacks that did not respond to outpatient treatment. Premature dropout from therapy was defined as leaving therapy before the end of the 11th week because this meant that participants could not complete the structured 12-week therapy program. Nineteen women out of 60 (32%) ended therapy prematurely.

All participants met the DSM-IV diagnostic criteria for BPD as assessed by the Structured Clinical Interview for DSM-IV Personality Disorders (First, Gibbon, Spitzer, Williams, & Benjamin, 1997). Axis I comorbidity was assessed using the Mini-International Neuropsychiatric Interview (Sheehan et al., 1998). Participants had a mean age of 27.8 years (SD = 6.9) and 10.5 years of school education (SD = 1.5). Forty-two percent had a comorbid current major depression, 38% a current posttraumatic stress disorder, 42% a current alcohol or substance abuse and 24% a current eating disorder. This investigation is part of a larger study on dysfunctional emotions in BPD, and sample characteristics and assessments have been reported in more detail elsewhere (Rüsch, Corrigan, Bohus, Jacob, et al., 2007; Rüsch, Corrigan, Bohus, Kühler, et al., 2007; Rüsch, Hölder, et al., 2006; Rüsch, Lieb, Bohus, & Corrigan, 2006; Rüsch, Lieb, et al., 2007). All participants gave written informed consent to the study after procedures had been fully explained. The study was approved by the local ethics committee.

2.2. Self-report measures

Perceived discrimination as mentally ill was assessed using Link’s Perceived Stigma Questionnaire (PSQ; Link, Cullen, Struening, & Shout, 1989) with a range from 1 to 6 and higher scores indicating more perceived stigma. Experiential avoidance was rated using the 9-item version of the Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004), with higher scores, ranged from 9 to 63, representing higher avoidance. The State-Trait-Anxiety-Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970) was used to measure trait anxiety. General psychopathology and anger—hostility were assessed by the Symptom Check List (SCL-90-R; Derogatis, 1977), each with a score between 0 and 4.

2.3. Statistical analyses

Analyses were conducted using SPSS for windows, version 11.1.5. In case of normally distributed data, group means were compared by two-tailed t-tests for independent samples. The number of previous psychiatric hospitalizations and suicide attempts showed a skewed distribution and were, therefore, compared by Mann tests. In order to investigate whether univariately significant predictors act independently, we additionally calculated a multivariate stepwise logistic regression including the above-mentioned variables as predictors (cf. Table 1). A significance level of $p < 0.05$ was chosen for all analyses.
3. Results

There were no significant differences in age, education or rates of psychiatric comorbidities between completers and non-completers. But non-completers had significantly more trait anxiety and more experiential avoidance at baseline than completers. With respect to clinical history, non-completers had significantly less life-time suicide attempts (Table 1) while the number of previous psychiatric hospitalizations did not differ between both groups. Further, there was a trend for more perceived discrimination as mentally ill and more anger–hostility at baseline among non-completers.

In a stepwise logistic regression on dropout as dependent variable, we used the variables in Table 1 as possible predictors. A lower number of suicide attempts (\(B = -0.31, SE = 0.14, p = 0.03\)) and higher experiential avoidance (\(B = 0.11, SE = 0.05, p = 0.03\)) both significantly predicted dropout from inpatient DBT (Nagelkerke \(R^2 = 0.30\) for the entire equation with these two predictors). The three variables that showed significant univariate group differences (experiential avoidance, trait anxiety, and number of suicide attempts; cf. Table 1) were only moderately related in bivariate Pearson correlations (all \(r < 0.5\)), thus providing evidence of acceptable interrelations for the regression analysis.

4. Discussion

This study investigated baseline variables related to dropout from 12-week inpatient DBT among women with BPD. Our hypotheses were partially confirmed. Higher experiential avoidance and anxiety were significantly associated with premature termination of treatment and should, therefore, be considered carefully during DBT in order to reduce dropout rates that are common even in highly specialized centers. A trend for more anger–hostility among non-completers echoes previous findings among BPD and other mental illnesses (Fassino, Abbate-Daga, Piero, Leonbruni, & Rovera, 2003; Heinssen & McGlashan, 1988). The trend for more perceived stigma among non-completers is in line with similar findings among persons with depression (Corrigan & Rüschi, 2002; Sirey et al., 2001).

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Completers (n = 41)</th>
<th>Non-completers (n = 19)</th>
<th>(p^{ab})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td>Perceived discrimination as mentally ill (PSQ(^c))</td>
<td>4.2 (0.8)</td>
<td>4.5 (0.5)</td>
<td>0.071(^a)</td>
</tr>
<tr>
<td>Experiential Avoidance (AAQ(^d))</td>
<td>44.7 (6.6)</td>
<td>49.2 (5.6)</td>
<td>0.014(^a)</td>
</tr>
<tr>
<td>General psychopathology (SCL-90-R(^e))</td>
<td>1.7 (0.7)</td>
<td>1.8 (0.7)</td>
<td>0.54(^a)</td>
</tr>
<tr>
<td>Anger–hostility (SCL-90-R(^e))</td>
<td>1.4 (1.0)</td>
<td>1.9 (0.8)</td>
<td>0.081(^a)</td>
</tr>
<tr>
<td>Trait anxiety (STAI-X2(^f))</td>
<td>58.9 (10.4)</td>
<td>65.9 (9.1)</td>
<td>0.014(^a)</td>
</tr>
<tr>
<td>Number of previous suicide attempts</td>
<td>4.9 (5.0)</td>
<td>1.9 (1.6)</td>
<td>0.012(^b)</td>
</tr>
<tr>
<td>Number of previous psychiatric hospitalizations</td>
<td>4.7 (4.2)</td>
<td>4.3 (6.0)</td>
<td>0.25(^b)</td>
</tr>
</tbody>
</table>

\(^{a,b}\) Comparisons for means across each row are two-tailed \(t\)-tests (superscript a) or, for non-normally distributed variables, Mann-Whitney-Tests (superscript b).

\(^c\) Perceived Stigma Questionnaire (Link et al., 1989).

\(^d\) Acceptance and Action Questionnaire (Hayes et al., 2004).

\(^e\) Symptom Check List-Revised (Derogatis, 1977).

\(^f\) State-Trait-Anxiety-Inventory (Spielberger et al., 1970).
Dropout was also associated with a low number of life-time suicide attempts. This may seem counterintuitive since non-completers showed a trend towards a higher level of dysfunctional emotions. However, while in the study of Gunderson et al. (1989) the number of suicide attempts was not associated with early dropout, the frequency of suicidal thoughts was positively related to the length of stay in psychotherapy. The fact that both the number of suicide attempts and experiential avoidance independently predicted dropout in the logistic regression points to these two variables as key predictors in our study. Anxiety did not predict additional variance, probably because it was moderately related to experiential avoidance (Rüsch, Corrigan, Bohus, Jacob, et al., 2007).

BPD is a heterogeneous syndrome that includes several subtypes (Paris, 2005) and two main factors have been identified of which one was associated with high anger and emotional instability, but low suicidality (Whewell, Ryman, Bonanno, & Heather, 2000). It could be speculated that non-completers in our study belonged to this subtype because non-completers in our study had near-significant higher anger levels. Their externalizing ‘angry’ style of coping with negative emotions may be a risk factor for dropout, at least in highly regulated inpatient settings, but on the other hand may be protective against suicidality. Both clinical experience and previous studies (Gunderson et al., 1989) suggest that a substantial number of dropouts in this population occurs due to outbursts of anger. Individuals with these characteristics may be better treated in outpatient or day hospital settings (Gunderson et al., 1989).

This is a preliminary study. Our sample size was limited and, therefore, negative findings are not robust. Our findings cannot be generalized to men with BPD or to outpatient DBT. Future studies should continue to assess the therapeutic alliance and its possible impact on treatment adherence as in the recent study by Spinhoven, Giesen-Bloo, van Dyck, Kooiman, and Arntz (2007). Because baseline psychopathology was not related to dropout, the above-mentioned variables and the therapeutic process may be more relevant to treatment adherence than psychopathology itself. Unlike Gunderson et al. (1989), we did not find an association between previous treatment history and dropout. However, these factors should be studied in other treatment settings. Finally, axis II comorbidity may affect dropout rates and needs to be investigated in future studies.

Despite these limitations, our results point to high anxiety and experiential avoidance as key risk factors for dropout from inpatient DBT that should be investigated in future studies and addressed in clinical practice to reduce dropout rates as well as perceived stigma. Further, a pattern of low life-time suicidality in combination with high anger—hostility may reflect a subtype of BPD that is associated with early discontinuation of treatment.

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References

