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[Running head:] Unified Treatment for Borderline Personality Disorder

Examining the Efficacy of the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders in the Treatment of Individuals With Borderline Personality Disorder

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Abstract

Although an abundance of diagnosis specific protocols exist, they tend to inadvertently contribute to issues with treatment dissemination. A unified approach that can address multiple disorders simultaneously by targeting the core underlying components has been identified as a possible solution. The Unified Protocol for Transdiagnostic Treatment of Emotional Disorders (UP; Barlow et al., 2011) has demonstrated efficacy in the treatment of anxiety disorders and depression, and has been theorized to work in the treatment of other emotional disorders in which emotion dysregulation is a core component, including Borderline Personality Disorder (BPD). In the present study, the usefulness of the UP was examined in a small sample of individuals ($N = 8$) with BPD by employing a multiple baseline across individuals single case experimental design. This study provided an important extension of research related to the applicability of the UP and preliminary support for its efficacy in the treatment of BPD.

Keywords: unified protocol, transdiagnostic, emotional disorders, borderline personality disorder
Borderline personality disorder (BPD) is a debilitating disorder that involves persistent dysregulation of cognitions, emotions, and behaviors (Crowell, Beauchaine, & Linehan, 2009). Individuals with BPD have been considered among the most difficult to treat, yet may be among those who need treatment the most. Many mental health professionals are either not suitably familiar with current diagnosis-specific treatments for BPD, or are unlikely to provide the necessary services due to time and monetary costs. These restrictions interfere with services that are desperately needed. The unified protocol for transdiagnostic treatment of emotional disorders (UP; Barlow et al., 2011) is a relatively new treatment approach that was developed with these limitations in mind and is designed to treat a wide range of emotional conditions including panic disorder, obsessive–compulsive disorder, generalized anxiety disorder, social anxiety disorder, and major depressive disorder (Barlow et al., 2011). In fact, UP may be applicable to all emotional disorders in which emotion dysregulation is a key factor (Boisseau, Farchione, Fairholme, Ellard, & Barlow, 2010; Payne, Ellard, Farchione, Fairholme, & Barlow, 2014). Several studies have demonstrated the efficacy of UP in reducing symptoms of anxiety and depression. In two studies these gains were maintained at 6-month follow-up. In addition, in 50–71% of cases, comorbid diagnoses improved as well (Ellard, Fairholme, Farchione, & Barlow, 2010; Farchione et al., 2012).

BPD has been shown to be highly comorbid with depression and anxiety disorders (Grant et al., 2008; Zanarini, Frankenburg, Dubo, Sickel, & Trikha, 1998). Factors including negative affect, cognitive and emotional avoidance, and emotion dysregulation are assumed to be involved in anxiety and depression as well as BPD and other disorders of emotion (Brown & Barlow, 2009; Brown, Chorpita, & Barlow, 1998). These common factors as well as high rates of
comorbidity have led researchers to the assumption that there is substantial overlap among emotional disorders (Brown & Barlow, 2009; Barlow, Allen, & Choate, 2004; Ellard et al., 2010; Farchione et al., 2012; Moses & Barlow, 2006; Payne et al., 2014).

Currently, a large body of research supports dialectical behavior therapy (DBT) as the standard treatment for BPD. Unfortunately, many people do not have the resources (i.e., time, finances, etc.) to participate in a full course of DBT, which requires weekly individual and group therapy for 1 year plus availability for skills coaching 24 hours per day, 7 days per week. Many clinicians in real-world settings lack the resources necessary to gain training in and provide DBT. Given the costs and time commitment required for DBT, there is a need for more affordable and time-limited therapies (Zanarini, 2009). Thus, the present study evaluated the usefulness of UP in individuals with BPD. One aim of UP is to address comorbidity by targeting the underlying mechanisms that are common to emotional disorders (Barlow et al., 2004). Emotion dysregulation is considered one of the core components of BPD (Linehan, 1993) and is addressed in UP. Therefore, UP may serve as a practical treatment option for individuals with BPD among various other emotional disorders, in need of a short-term skill-based treatment (Barlow et al., 2004).

The present study aimed to contribute to the literature by evaluating the efficacy of UP in the treatment of individuals with BPD using a multiple baseline across subjects design. It was hypothesized that participants would demonstrate stability in scores on the measure of borderline symptomatology over the course of baseline, followed by improvements throughout treatment and at posttreatment. It was also expected that participants would no longer meet diagnostic criteria for BPD at posttreatment, and that all posttreatment gains would be maintained at 1-month follow-up.
Method

Participants

Participants were at least 18 years of age, met diagnostic criteria for BPD, signed an informed consent for treatment, and agreed to participate for the entire length of the study, including the follow-up assessment. To improve internal validity while maximizing generalizability, participants were excluded only if they (a) met criteria for current substance dependence, current bipolar disorder, or current psychotic disorder; (b) were taking benzodiazepines on an as-needed basis; or (c) were imminently suicidal. In addition, to maximize internal validity, medication stability requirements were as follows: Participants were asked not to start, stop, or change medication doses during the course of the study. If medications were started, stopped, or changed during the study, participants were allowed to remain in the study and these data were recorded and examined. Participants were prohibited from involvement in any concurrent psychological treatment outside of the research. All study procedures were approved by the California School of Professional Psychology at Alliant International University Institutional Review Board.

Nine participants were recruited and signed informed consent; eight participants completed the treatment program and follow-up assessments. One participant dropped out after the fourth session, stating that she was not motivated for treatment. Of the participants who completed treatment, all were females who ranged in age from 26 to 55 years, with a mean age of 40. All participants were Caucasian, except for one who identified as biracial (Caucasian and Mexican). Annual household income ranged from $9,800 to $100,000, with an average of
$45,225. Level of education ranged from general educational development diploma to doctoral degree (see Table 1 for additional demographic information).

**Measures**

Self-report and clinician-administered measures were selected based on their psychometric properties and use in other studies that have assessed similar variables. The following measures were included:

*Borderline Symptom List (BSL)*

The BSL (Bohus et al., 2001) is a self-report measure that assesses borderline symptomatology over the past week. It consists of 95 items, each of which measures distress related to that particular item and is rated on a scale ranging from 0 (*not at all*) to 4 (*very strong*). The BSL yields a total score between 0 and 380 for the global scale, and scores for each of the seven subscales (e.g., affect regulation, self-destruction, and loneliness) with higher scores indicating greater levels of pathology. Example items include “I was torn apart inside” and “I had no idea of who I really was.” In a sample of 63 females with a BPD diagnosis the BSL demonstrated excellent internal consistency, with coefficient alphas ranging from .80 to .94 for the subscales, and .97 for the total score (Bohus et al., 2007). It also demonstrated good sensitivity to change and subscale intercorrelations ranging from .21 to .68.

*Structured Clinical Interview for DSM-IV Disorders–I (SCID-I CV)*

The SCID-I (First, Spitzer, Gibbon, & Williams, 1996) is a semistructured interview used to diagnose Axis I disorders according to DSM-IV (American Psychiatric Association, 1994) criteria. The SCID-I is known as the gold standard diagnostic interview and has demonstrated
fair to good reliability, with kappa scores ranging from .61 to .83 (Lobbestael, Leurgans, & Arntz, 2011; Zanarini et al., 2000). Validity has been difficult to establish due to a paucity of structured interviews with which to compare. However, as compared with unstructured interviews, the SCID-I has demonstrated better specificity as evidenced by a correlation increase from $r \approx .5$ to $r \approx .8$ (Basco et al., 2000).

*Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II)*

The SCID-II (First, Gibbon, Spitzer, Williams, & Benjamin, 1997) is a semistructured interview used to assess the presence of personality disorders according to DSM-IV (American Psychiatric Association, 1994) criteria. It has demonstrated a wide range of reliability, with kappa scores ranging from .65 to .98 (Lobbestael et al., 2011; Maffei et al., 1997). Validity coefficients have ranged from .45 to .95 (Skodol, Rosnick, Kellman, Oldham, & Hyler, 1988).

**Procedure**

**Recruitment**

Three participants were assigned to each of three baseline conditions: 2 weeks, 4 weeks, and 6 weeks duration. Of the nine participants who began treatment, eight completed the full course. Six of these participants were recruited from the DBT Center of San Diego. Their contact information was on a list because they expressed an interested in opportunities to participate in research studies. Two were referred by local psychologists, and one learned about the study through a friend. Twelve additional people contacted the study, however, were either ineligible or chose not to participate. Two were living out of state, one had a diagnosis of current bipolar
disorder, and three were participating in DBT. The remaining six did not return phone calls to participate.

_Treatment_

Participation in the study required a total of 20 to 27 weeks. All participants completed a full battery of baseline measures. This was followed by a 2-, 4-, or 6-week baseline during which participants were reassessed weekly. Therapy consisted of 50-minute weekly individual sessions in a quiet office setting. Each therapy session began with a review of the homework and ended with a summary of the new treatment concepts and clarification of the homework assigned. The UP specifically targeted borderline symptomatology (e.g., inappropriate outbursts of anger, identity disturbance, impulsivity, affective instability, feelings of emptiness) through the application of skills including goal setting, countering emotion-driven behaviors, nonjudgmental present-focused awareness, cognitive reappraisal, and emotion exposures. The treatment protocol included eight modules, each of which required one to two sessions, with the exception of the emotion exposure module, which required four to six. Thus, the total number of sessions ranged from 14 to 16, depending on individual needs and time taken to understand concepts. Treatment modules are briefly described below.

Module 1 focused on building rapport, increasing motivation for treatment, and setting specific treatment goals. Module 2 focused on providing psychoeducation on the nature of emotions and introducing the three-component model (i.e., in cognitive-behavioral therapy, the interaction of thoughts, feelings, and behaviors). In addition, participants were taught to identify and label antecedents, reactions (e.g., thoughts, feelings, behaviors), and consequences. The concept of emotion avoidance was briefly introduced in Module 2 and explained in more detail in Module 5. Module 3 focused on understanding primary and secondary emotions, and
practicing nonjudgmental present-focused awareness and anchoring to the present. Participants engaged in a formal mindfulness exercise in which they were encouraged to practice objectively observing their experience. Module 4 focused on cognitive appraisal and reappraisal. Participants were assisted in increasing their cognitive flexibility by identifying thinking traps and challenging maladaptive thoughts. Module 5 focused on understanding emotion avoidance and emotion-driven behaviors. Participants were educated on the role of negative reinforcement in strengthening maladaptive behaviors, and the paradoxical nature of avoidance. Module 6 focused on increasing awareness of physical sensations, and included symptom induction exercises and interoceptive exposures such as hyperventilation, straw breathing, spinning, and running in place. Module 7 focused on designing and completing effective exposures, including interoceptive, in vivo, and imaginal exposures. Exposures that targeted BPD symptoms were prioritized over all other diagnoses. Module 8 focused on accomplishments, relapse prevention, and maintenance. Additionally, previously taught treatment skills were reviewed and participants were assisted in developing a plan to continue making progress toward their goals.

In an effort to maximize retention, participants were asked to make a $5 donation for each session. Participants were informed that their donations would be forwarded to a research foundation if they dropped out of treatment or were unable to complete the full course of treatment or follow-up assessment for any reason. Participants who completed the follow-up evaluation received the full amount of their donation as well as a $25 Visa gift card.

Posttreatment and follow-up assessments were conducted by two trained research assistants: a graduate-level female and bachelor’s-level male who was recently accepted to graduate school. Prior to administering the SCID-I-CV and SCID-II to research participants, both assessors received didactic training and practiced in vivo administrations. Administrations were
repeated until assessors reached 100% agreement. Treatment was delivered by the first author (ML), who received training by one of the treatment coauthors (LA).

Research Design

A single-case experimental design was utilized by applying a multiple baseline across individuals. According to Kazdin (2003), this type of design allows for a demonstration of the effect of the treatment by continuously collecting data and applying the treatment to different individuals at different points in time. In the current study, it was expected that changes in scores on the measure of borderline symptoms would occur only after the independent variable (i.e., treatment) was introduced. In multiple baseline studies, traditional statistics are not used. Instead, this design relies on visual inspection of the data, which aids in drawing conclusions about whether or not the intervention led to change. Thus, data were analyzed via visual inspection, percentage change, and calculations of the reliable change index (RCI; Jacobson & Truax, 1991). The RCI is used to determine whether a change in an individual’s score is significant based on the reliability of the measure. Magnitude of change was measured as follows: 0 to 33.3% was considered small, 33.4 to 66.7% was considered moderate, and 66.8 to 100% was considered large.

Results

The BSL was administered on a weekly basis over the course of baseline and throughout treatment. The SCID-I-CV and BPD module of the SCID-II were administered across four time points. The first time point is referred to as prebaseline. The time point following the end of the baseline phase, prior to the beginning of treatment is referred to as pretreatment. The time point
immediately after the final treatment session is referred to as posttreatment, and the final time point will be referred to as follow-up. Figure 1 provides an illustration of changes in BSL scores over time.

Single-Case Analysis

Participant 1 (P1) was a 30-year-old never-married woman. At the initial interview, she described intense interpersonal relationships, fear of abandonment by her boyfriend, inappropriate outbursts of anger, and drastic shifts in her mood. She met seven of nine BPD criteria including frantic efforts to avoid abandonment, unstable interpersonal relationships, identity disturbance, impulsivity, affective instability, chronic feelings of emptiness, and difficulty controlling anger. She also reported having problems with coworkers, preoccupation with health concerns, and panic attacks. She was assigned to a 2-week baseline. P1’s global BSL scores decreased during the baseline phase, reflecting an improvement in symptoms prior to the introduction of the treatment intervention. At the start of treatment, her scores peaked above all baseline scores and remained elevated during the first 4 weeks of treatment. Her scores declined each week over the next 3 weeks, and were somewhat erratic throughout treatment. At posttreatment, she reflected a 49.5% decrease compared with pretreatment, and an additional 12% decrease at follow-up. According to the RCI (Jacobson & Truax, 1991), P1 achieved reliable change on the BSL global scale (RCI = -2.49, p < .05). At pre-pretreatment, P1 met diagnostic criteria for BPD and panic disorder. At posttreatment and follow-up alike, she no longer met criteria for panic disorder, but continued to meet six criteria for BPD (see Table 2). To address negative sexual side effects, P1’s Zoloft was decreased by 50 mg/day and Lamictal increased by 50 mg/day. This change occurred during Week 11 of treatment, prior to which she
had demonstrated a steady decline in symptoms. No marked change in symptoms occurred following the medication change.

Participant 2 (P2) was a 26-year-old never-married woman. At the initial interview, she reported symptoms of depression and anxiety, hostility toward others, interpersonal problems at work as well as in her personal life, and instability in her sense of self. She met all nine BPD criteria and reported that the symptoms interfered with her ability to complete graduate school and to establish and maintain meaningful relationships. She was assigned to a 2-week baseline. P2’s global BSL scores reflected instability in borderline symptoms prior to the treatment phase. Following the introduction of treatment, her scores gradually and linearly decreased over the next 4 weeks and fell below all baseline scores. In the following 9 weeks, P2’s scores were somewhat erratic although remained well below baseline. At posttreatment, her global BSL score was 49% improved over pretreatment. At follow-up, however, her score returned almost to baseline and reflected a 37% increase over posttreatment. Her follow-up score reflected an improvement of small magnitude (29.5%), as compared with pretreatment. Overall, P2’s scores on the global BSL scale did not reflect reliable change (RCI = 0.136, p > .05). At pretreatment, P2 met criteria for specific phobia, blood-injection-injury type, and BPD. She continued to meet criteria for both diagnoses at posttreatment (dropping from nine to six BPD criteria). At follow-up, she no longer met criteria for the specific phobia, yet continued to meet five criteria for BPD (see Table 2).

Participant 3 (P3) was a 48-year-old never-married woman. At the initial interview, she described chronic symptoms of depression, hostility toward others, difficulties at work, ongoing issues with her boyfriend, and chronic feelings of emptiness. She met six criteria for BPD including unstable interpersonal relationships, unstable sense of self, impulsivity, affective
instability, chronic feelings of emptiness, and inappropriate intense anger. Her symptoms interfered with her ability to establish healthy relationships, communicate effectively with others, and participate in routine blood work as required by her employer. She was assigned to a 2-week baseline. On the global scale of the BSL, P3’s score decreased during the baseline phase, reflecting a reduction of symptoms prior to the introduction of the treatment. However, her pretreatment score increased over baseline and remained elevated over baseline throughout treatment. Her scores gradually and linearly decreased in the last 4 weeks of treatment, yet remained increased over baseline. Her posttreatment score reflected a change of small magnitude (10%) over pretreatment, whereas her follow-up score increased by 24% reflecting a worsening of symptoms over pre- and posttreatment. Thus, P3 did not achieve reliable change on the global BSL scale (RCI = −0.181, p > .05). At pretreatment, P3 met criteria for borderline personality disorder, dysthymic disorder, and specific phobia, blood-injection-injury type. She continued to meet criteria for all three diagnoses at post-treatment, including six BPD criteria. At follow-up, she did not meet any of the criteria for BPD and no longer met diagnostic criteria for any of the aforementioned diagnoses (see Table 2). Of note, P3’s medication was switched from Lamictal to Abilify 3 days prior to her follow-up assessment. Although all diagnoses remitted at follow-up, her score on the BSL reflected an increase and it is unlikely the medication switch would result in drastic changes in only 3 days.

Participant 4 (P4) was a 27-year-old married woman. At the initial interview, she described intrusive memories of abuse by her ex-husband, frequent arguments in her current marriage, drastic mood changes, lack of social support, depression, and intense anger toward others. She met eight BPD criteria including frantic efforts to avoid abandonment, unstable sense of self, impulsivity, recurrent suicidal threats, affective instability, chronic feelings of emptiness,
inappropriate intense anger, and stress-related paranoid ideation. Her symptoms interfered with her ability to establish friendships, have a healthy relationship with her husband, complete college, and work full time. She was assigned to a 4-week baseline. On the BSL global scale, P4’s scores reflected a sharp decrease in symptoms prior to implementation of the treatment. Her scores varied from week to week during the treatment phase, and started to decrease toward the end of treatment. In the last few weeks of treatment, her scores leveled off. At posttreatment, an improvement of small magnitude (16%) was reflected over pretreatment, and she met only two BPD criteria. At follow-up, however, her score increased by 73% and returned to baseline. Overall, P4 did not achieve reliable change ($\text{RCI} = -0.249, p > .05$). At pretreatment, she met criteria for BPD, major depressive disorder, and posttraumatic stress disorder. At posttreatment she no longer met criteria for any of these diagnoses, and met only three BPD criteria. At follow-up, she met criteria for major depressive disorder only (see Table 2), and continued to meet three BPD criteria.

Participant 5 (P5) was a 33-year-old married but separated woman. She met eight criteria for BPD including frantic efforts to avoid abandonment, intense interpersonal relationships, instability in her sense of self including confusion about her sexual orientation, impulsivity, recurrent suicidal threats, chronic feelings of emptiness, intense angry outbursts, and stress-related paranoid ideation. She also reported symptoms of depression and social anxiety related primarily to her weight. Her symptoms interfered with her ability to form healthy relationships, to maintain employment, and, when employed, to act appropriately and professionally at work. She was assigned to a 4-week baseline. On the BSL global scale, P5’s scores largely decreased during the baseline phase, which indicated an improvement in borderline symptoms prior to the introduction of treatment. Her treatment scores varied from week to week, and her posttreatment
score reflected a 5% improvement over pretreatment. Reliable change on the global scale was not achieved from pre- to posttreatment (RCI = -0.091, p > .05). At follow-up, however, her symptoms continued to decrease by 30% and reflected a change of small to moderate magnitude over pretreatment. At pretreatment, P5 met criteria for BPD, major depressive disorder, and social phobia, generalized type. At posttreatment and follow-up, all diagnoses were in remission (see Table 2) and only four BPD criteria were met.

Participant 6 (P6) was a 50-year-old never-married woman. At the initial interview, she stated that she was involved in an emotionally abusive relationship, and reported a desire to get out of the relationship. In addition, she reported a lack of social support, mood instability, depression, excessive worry, inability to set boundaries, and financial distress. She met six BPD criteria including unstable interpersonal relationships, unstable sense of self, affective instability, chronic feelings of emptiness, inappropriate intense anger, and stress-related paranoid ideation. Her symptoms interfered with her ability to establish healthy relationships, remove herself from the abusive relationship, and participate in enjoyable activities. She was assigned to a 6-week baseline. P6’s scores reflected some week to week variability over baseline and throughout treatment on the global scale of the BSL. In the initial 3 weeks of treatment, her scores fell below pretreatment, although they remained increased over some baseline scores. Her scores continued to fluctuate throughout treatment and in the final 4 weeks, an upward linear trend was demonstrated, reflecting a worsening of symptoms. At posttreatment, her score reflected a 4% increase over baseline. Her follow-up score reflected a decrease of 21% over posttreatment. However, her lowest score occurred during the baseline phase. A pre- to posttreatment change analysis indicated that P6 did not achieve reliable change on the BSL global scale (RCI = 0.136, p > .05). At pretreatment P6 was diagnosed with BPD, generalized anxiety disorder, dysthymic
disorder, and specific phobia, situational type (flying). At posttreatment, she continued to meet criteria for specific phobia, situational type, and dysthymic disorder. She no longer met criteria for generalized anxiety disorder and met only four BPD criteria. At follow-up, she no longer met criteria for specific phobia, situational type, or BPD (met only one criterion). However, she met criteria for generalized anxiety disorder (see Table 2).

Participant 7 (P7) was a 51-year-old married woman. At the initial interview, she reported marital discord, problems at work and in her personal life, difficulty controlling anger, and excessive worry about her marriage, finances, and family. She met six BPD criteria including unstable interpersonal relationships, unstable sense of self, recurrent suicidal threats, affective instability, inappropriate intense anger, and stress-related paranoid ideation. Her symptoms interfered with her ability to establish boundaries, maintain healthy relationships, communicate effectively with her husband, get along with coworkers, and work full time. She was assigned to a 6-week baseline. P7’s baseline scores on the BSL global scale reflected drastic week to week variability. Her scores started to drop prior to the first therapy session, and continued to decrease gradually during the first 6 weeks of therapy. Her pre- to posttreatment scores reflected a change of large magnitude (81%) and she achieved reliable change on the BSL global scale (RCI = −4.286, p < .05). At follow-up, some of her gains were lost, however, her score remained 57% decreased over pretreatment. P7 met diagnostic criteria for BPD and generalized anxiety disorder at pretreatment. At posttreatment and follow-up alike, she no longer met criteria for BPD (she met only four criteria at posttreatment and three at follow-up) or generalized anxiety disorder (see Table 2).

Participant 8 (P8) was a 55-year-old married woman. At the initial interview, she reported excessive worry, panic attacks, social anxiety, depression, drastic mood changes,
intrusive thoughts, and excessive cleaning and checking. She met seven BPD criteria including unstable interpersonal relationships, unstable sense of self, impulsivity, affective instability, chronic feelings of emptiness, inappropriate intense anger, and stress-related paranoid ideation. She also reported a history of alcohol and drug dependence and had completed a rehabilitation program 9 months prior to the initial interview. Her symptoms interfered with her ability to maintain healthy relationships, set boundaries, work, and participate in enjoyable activities. She was assigned to a 6-week baseline. On the global scale of the BSL, P8’s scores demonstrated a steady decline during the baseline phase. At the start of treatment, her scores continued to decrease gradually. Her scores increased in the 2 weeks prior to the final therapy session, then decreased at posttreatment. Her posttreatment score reflected a 67.5% decrease over pretreatment, and she achieved reliable change on the global BSL scale (RCI = -2.880, p < .05). At follow-up, her score increased by 38% yet remained much improved over baseline scores and pretreatment. At pretreatment, P8 met criteria for generalized anxiety disorder, obsessive compulsive disorder, social phobia, and BPD. However, she did not meet criteria for panic disorder with agoraphobia (which was present at prebaseline). At posttreatment, she continued not to meet criteria for panic disorder with agoraphobia. She no longer met criteria for BPD (met only four criteria), although she continued to carry diagnoses of generalized anxiety disorder, obsessive compulsive disorder, and social phobia. Of note, P8 unintentionally was not assessed for major depressive disorder at posttreatment. At follow-up, she met criteria for only two of her previous diagnoses including obsessive compulsive disorder and social phobia. Thus, she no longer met criteria for panic disorder, major depressive disorder, generalized anxiety disorder, or BPD (she met only three criteria; see Table 2).
Overall, several participants achieved remission status for their diagnoses according to the SCID, yet their symptoms remained elevated according to the BSL. These discrepant findings are discussed below.

**Discussion**

The present study evaluated the efficacy of the UP in the treatment of individuals with BPD, using a multiple baseline across subjects single-case experimental design. Participants were expected to demonstrate stability in scores on the measure of borderline symptoms during the baseline phase, followed by decreases in symptoms throughout treatment, and at posttreatment and follow-up. It was also hypothesized that participants would no longer meet diagnostic criteria for BPD at posttreatment and follow-up. Some of the hypotheses were supported. For example, some participants (four of eight) demonstrated decreases in borderline symptoms at posttreatment. However, because baseline scores were often unstable, it was difficult to draw conclusions about the impact of the treatment on the dependent measure. Further, one of the four participants who improved at posttreatment experienced a return to baseline at follow-up. All findings are discussed in further detail below.

**Symptom Changes Over Time**

*Borderline Symptomatology*

In total, three participants (P1, P2, and P8) demonstrated clear pre- to posttreatment reductions in symptoms on the global scale of the BSL. Two (P1 and P8) of the three also achieved reliable change. P7 demonstrated reliable change as well, however, her scores varied drastically during the baseline phase, which made it difficult to draw conclusions about the
impact of treatment. P3, P4, and P5 demonstrated only very modest improvements (5–16%), and P6 demonstrated a slight worsening of symptoms. At follow-up, two participants continued to experience further decreases in symptoms and one demonstrated some post- to follow-up improvement, although there was a slight worsening in symptoms pre- to posttreatment, as previously mentioned. Five participants, however, experienced an increase in symptoms, with two reflecting increases above their pretreatment score. Although not formally measured, it is possible that the five participants who reported a worsening of symptoms did not continue to practice the treatment skills after therapy ended (i.e., between the final session and follow-up). The UP emphasizes the importance of continuing to apply treatment skills after treatment has ended, and suggests that self-evaluation of progress and skills practice may be particularly helpful immediately after the close of treatment (Barlow et al., 2011). P6, the one participant who demonstrated a pre- to posttreatment worsening in borderline symptoms, was the only participant known to be involved in an ongoing abusive relationship, which she believed she would never escape. It is likely that her ongoing exposure to active trauma limited her ability to benefit from treatment. Interestingly, however, her follow-up score reflected an improvement in symptoms, which may have indicated a delayed response to treatment. It is unknown whether or not she was still in the abusive relationship at the time of follow-up.

During baseline meetings, participants were asked to complete the measures in the waiting area of a private practice office. Then, the therapist met briefly with the participant to schedule the next appointment. Although therapist contact was minimal during the baseline phase, many participants experienced decreases in BSL scores. It is difficult to draw conclusions regarding why some participants experienced improvements in symptoms prior to the introduction of treatment. Research has long suggested that clients sometimes improve simply as
a result of assessment (Garfield, 1996). Hope has also been identified as a factor that positively influences treatment outcome, regardless of theoretical orientation or type of therapy applied (Frank, 1968). On this point, it is possible that those who experienced a decrease in symptoms prior to the implementation of treatment would have continued to improve on their own, without treatment.

**Diagnostic Status**

Participants’ diagnoses remained largely unchanged from prebaseline to pretreatment (i.e., prior to introduction of treatment), with one exception. P8’s major depressive disorder and panic disorder diagnoses spontaneously remitted prior to the introduction of treatment. By follow-up, six of the eight participants (75%) no longer met diagnostic criteria for BPD. Two participants were diagnosed with BPD across all four time points.

Other BPD treatment outcome studies have demonstrated diagnostic remission. For example, in a study comparing DBT with treatment as usual (TAU), 7 out of 10 individuals in the DBT group no longer met diagnostic criteria at posttreatment whereas 5 out of 10 individuals in the TAU group continued to meet criteria (Koons et al., 2001). In another study that evaluated cognitive analytic therapy for BPD, slightly over half of the participants with BPD no longer met diagnostic criteria at posttreatment (Ryle & Golynkina, 2010). A similar outcome was demonstrated in a study of schema-focused therapy on BPD (van Asselt et al., 2008). This finding was expected in our study, however, it is somewhat confusing considering 4 of the 6 participants whose diagnoses remitted demonstrated only very modest improvements on the BSL (0–16%), and the two participants who did not achieve diagnostic remission demonstrated among the greatest rates of improvement on the BSL (48.5–49.5%).
There may be several explanations for this discrepancy. First, the independent assessors were aware that participants had received treatment, which may have increased the likelihood of rater bias. Second, social desirability may have played a role. For example, the participants could have presented favorably to the interviewer, and responded more honestly on the BSL because of the anonymity of a self-report versus clinician-administered measure. Third, the BSL was designed to measure “specific complaints, i.e., subjective impairments of patients with BPD” (Bohus et al., 2007) and assesses a broad set of symptoms, some of which are not BPD specific and do not correspond to the DSM-IV-TR (American Psychiatric Association, 2000) BPD criteria. One item, for example, states “I felt stressed out.” Thus, it is possible that BSL scores remained elevated even in the absence of BPD. Finally, it may be that although symptoms are still elevated, diagnostic status is based on interference and distress. Thus, it is possible that the treatment taught participants healthier ways to cope with their symptoms, decreasing levels of distress and interference. P2, one of the two participants who continued to meet diagnostic criteria across all four time points, was dealing with a serious (and possibly terminal) medical condition and often did not feel well enough to attend therapy. During Week 10 of therapy, she misplaced her treatment workbook, which she chose not to replace. She was the only participant who had a pattern of not completing weekly homework assignments, bringing into question her commitment to treatment and/or physical inability to fully participate in the treatment protocol.

Finally, all eight participants were diagnosed with at least one comorbid anxiety or mood disorder at pretreatment. By follow-up, five participants demonstrated full remission of all comorbid diagnoses, and two demonstrated remission of some but not all comorbid diagnoses. Only one participant did not experience remission of her comorbid diagnoses, though she was no longer diagnosed with BPD.
Clinical Observations

Despite improvements in symptoms for some participants, the majority of participants did not achieve reliable change in borderline symptomatology, and week to week variability during the baseline phase limits the ability to evaluate the effect of the treatment on the dependent measures (Kazdin, 2003, 2011). However, because the primary investigator met with participants individually over the course of 5 to 7 months (from prebaseline to follow-up), several important factors were observed and noted. Accomplishments and challenges not captured on the dependent measures are presented below.

Between the posttreatment and follow-up assessment, P3 had her blood drawn, which she had been avoiding for over a year. This allowed her to keep her job in a medical field, which required annual blood work. P4 achieved her treatment goal of retaking her real estate exam, which she had been avoiding for 2 years. She completed and passed the exam, which in turn helped her to gain employment. P7 started to communicate more effectively with her husband, and learned to set boundaries with her friends and family, which reportedly increased the quality of these relationships. Four participants (P2, P3, P4, and P8) reported feeling angry with the therapist regarding treatment ending and indicated that they may not be able to handle attending the final session. Interestingly, they each completed the entire course of treatment and attended their follow-up appointment. It is possible that the incentive ($25 Visa gift card) enhanced participants’ motivation to complete the follow-up assessment. However, the UP strongly encouraged countering avoidance, and when the idea of dropping out of therapy was brought up in session, UP concepts were reiterated and participants were encouraged to counter their emotional avoidance. In addition, completing treatment was presented as an opportunity to end a
relationship in a healthy manner, which was unfamiliar to several, if not all, of the participants in the present study. The low attrition rate suggests that this is an acceptable form of treatment for even those clients who often terminate prematurely. In other studies that evaluated DBT for BPD, dropout rates ranged from 8 to 38% (Friedrich, Gunia, & Huppertz, 2003; Koons et al., 2001; Linehan et al., 1999, 2002; Linehan, McDavid, Brown, Sayrs, & Gallop, 2008; McMain et al., 2009).

The findings of the present study provide preliminary support for the UP as a practical psychotherapy alternative for individuals with BPD (Barlow et al., 2004). Several participants made important changes and appeared to improve during treatment. Although some participants reported increases in symptoms at follow-up, they often remained improved over pretreatment levels, and 75% no longer met diagnostic criteria for BPD by follow-up. In addition, seven of eight no longer met diagnostic criteria for some or all comorbid diagnoses. Despite the growing support for the UP and promising preliminary data, limitations of the present study are conceded.

Limitations

Several limitations existed in the present study. First, baseline scores were often unstable and at times reflected improvements prior to the introduction of the intervention. When baseline variability occurs, the effect of the intervention on outcome variables cannot be clearly established (Kazdin, 2003, 2011). Second, it may be the case that the participants were lower in suicidality (i.e., had not made a suicide attempt in the 30 days prior to recruitment) than many individuals with BPD who first present for treatment. Third, because treatment was delivered by only one therapist, outcomes may be attributed to therapist characteristics rather than the treatment itself. Research suggests that the same treatment delivered by different therapists often
results in different treatment outcomes (Westra, Constantino, Arkowitz, & Dozois, 2011). Thus, the current results may not be generalized across therapists. Fourth, the therapist in the present study was also the primary investigator, which can introduce experimenter expectancy effects (Rosenthal, 1966), and thus threaten validity. Fifth, the independent assessors were aware that the participants had received treatment, which may have increased the likelihood of rater bias. Sixth, because the follow-up period was restricted to 1 month, it is unknown whether the participants continued to improve, stayed the same, or returned to baseline post follow-up. However, we believe the findings are promising and, at the very least, suggest that additional research on the efficacy of the UP for BPD is warranted.

**Directions for Future Research**

This is the first known study to evaluate the efficacy of the UP in individuals with BPD. Therefore, there is ample room for additional research. Future research should include replication of the present study across settings, and with a larger, more demographically diverse sample. Randomized controlled trials (RCTs) that compare the UP with other psychotherapeutic interventions of known efficacy (e.g., DBT) are needed. Replications of the present study that include individuals with varying levels of BPD severity and varied comorbid diagnoses are needed to further evaluate the advantages as well as limitations of the UP. In addition, because the research design utilized in the present study is reliant on stability during the baseline phase, and instability is considered normative in the BPD population, future studies should consider use of alternate designs that do not rely on a stable baseline to draw conclusions about the impact of the independent variables on the dependent variables (e.g., the RCT). The efficacy of the UP in individuals with BPD should also be evaluated across therapists, and in group format. Future
research on the UP should evaluate the relationship between treatment adherence and 
competence, and treatment outcome. Homework compliance, a key predictor of treatment 
outcome (Kazantzis, Whittington, & Dattilio, 2010), should be measured in future UP studies as 
well. In addition, follow-up studies are needed to evaluate the long-term impact of the UP on 
BPD and comorbid diagnoses.

**Summary and Conclusions**

The findings of the present study provide preliminary evidence for the use of the UP in 
individuals with BPD. At the end of treatment, most participants reported feeling more stable in 
their sense of self and more confident in their ability to effectively manage symptoms. Most no 
longer met diagnostic criteria for BPD or comorbid anxiety and mood disorders by 1-month 
follow-up. The UP is a promising treatment that may offer hope to clients and treatment 
providers in need of a transdiagnostic, affordable, time-limited, and skill-based therapy program. 
This study provided an essential extension of research and served as a beginning point for further 
research on the efficacy of the UP in the treatment of individuals with BPD.
References


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doi:10.1037/a0016608


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**Author Note**

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Table 1  
Participant Demographic Characteristics

<table>
<thead>
<tr>
<th>Participant</th>
<th>Age</th>
<th>Gender</th>
<th>Marital Status</th>
<th>Ethnicity</th>
<th>Religion</th>
<th>Education</th>
<th>Annual Income</th>
<th>Medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>30</td>
<td>F</td>
<td>Single</td>
<td>C</td>
<td>Judaism</td>
<td>Doctoral</td>
<td>$55,000</td>
<td>Lamictal 50 mg/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Zoloft 100 mg/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Synthroid*</td>
</tr>
<tr>
<td>P2</td>
<td>26</td>
<td>F</td>
<td>Single</td>
<td>C</td>
<td>None</td>
<td>SGS</td>
<td>$40,000</td>
<td>Lamotrigine 100 mg/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wellbutrin SR 150 mg/day</td>
</tr>
<tr>
<td>P3</td>
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<td>Single</td>
<td>C</td>
<td>Methodist</td>
<td>SC</td>
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<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lamictal 100 mg/day</td>
</tr>
<tr>
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<td>27</td>
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<td>None</td>
<td>SC</td>
<td>$100,000</td>
<td>None</td>
</tr>
<tr>
<td>P5</td>
<td>33</td>
<td>F</td>
<td>Separated</td>
<td>C</td>
<td>Buddhism</td>
<td>TT</td>
<td>$9,000</td>
<td>None</td>
</tr>
<tr>
<td>P6</td>
<td>50</td>
<td>F</td>
<td>Single</td>
<td>C</td>
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<td>GED</td>
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</tr>
<tr>
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<td>Married</td>
<td>C</td>
<td>Christian</td>
<td>M</td>
<td>$12,000</td>
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</tr>
<tr>
<td>P8</td>
<td>55</td>
<td>F</td>
<td>Married</td>
<td>C</td>
<td>None</td>
<td>SC</td>
<td>$84,000</td>
<td>Estradiol, Nexium,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bystolic*</td>
</tr>
</tbody>
</table>

Note. F = female; C = Caucasian; CM = Caucasian and Mexican; SGS = some graduate school; SC = some college; TT = technical training beyond high school; GED = general equivalency diploma; M = master’s degree* Dose unknown.
### Table 2

Diagnoses for Each Participant Across Four Time Points

<table>
<thead>
<tr>
<th>ID</th>
<th>Prebaseline</th>
<th>Pretreatment</th>
<th>Posttreatment</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Panic disorder (PD)</td>
<td>PD</td>
<td>PD in remission</td>
<td>PD in remission</td>
</tr>
<tr>
<td></td>
<td>Borderline personality disorder (BPD)</td>
<td>BPD</td>
<td>BPD</td>
<td>BPD</td>
</tr>
<tr>
<td></td>
<td>Specific phobia, needle</td>
<td>Specific phobia,</td>
<td>Specific phobia,</td>
<td>Specific phobia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>needle</td>
<td>needle</td>
<td>in remission</td>
</tr>
<tr>
<td>P2</td>
<td>Dysthymia</td>
<td>Dysthymia</td>
<td>Dysthymia</td>
<td>Dysthymia in remission</td>
</tr>
<tr>
<td></td>
<td>Specific phobia, needle</td>
<td>Specific phobia,</td>
<td>Specific phobia,</td>
<td>Specific phobia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>needle</td>
<td>needle</td>
<td>in remission</td>
</tr>
<tr>
<td></td>
<td>Major depressive disorder (MDD)</td>
<td>MDD</td>
<td>MDD in remission</td>
<td>MDD</td>
</tr>
<tr>
<td></td>
<td>Posttraumatic stress disorder (PTSD)</td>
<td>PTSD</td>
<td>PTSD in remission</td>
<td>PTSD in remission</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BPD</td>
<td>BPD</td>
<td>BPD in remission</td>
</tr>
<tr>
<td>P3</td>
<td>Dysthymia</td>
<td>Dysthymia</td>
<td>Dysthymia</td>
<td>Dysthymia in remission</td>
</tr>
<tr>
<td></td>
<td>Specific phobia, needle</td>
<td>Specific phobia,</td>
<td>Specific phobia,</td>
<td>Specific phobia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>needle</td>
<td>needle</td>
<td>in remission</td>
</tr>
<tr>
<td></td>
<td>BPD</td>
<td>BPD</td>
<td>BPD</td>
<td>BPD in remission</td>
</tr>
<tr>
<td>P4</td>
<td>MDD</td>
<td>MDD</td>
<td>MDD in remission</td>
<td>MDD in remission</td>
</tr>
<tr>
<td></td>
<td>Social anxiety disorder (SAD)</td>
<td>SAD</td>
<td>SAD in remission</td>
<td>SAD in remission</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BPD</td>
<td>BPD in remission</td>
<td>BPD in remission</td>
</tr>
<tr>
<td>P5</td>
<td>Generalized anxiety disorder (GAD)</td>
<td>GAD</td>
<td>GAD in remission</td>
<td>GAD</td>
</tr>
<tr>
<td></td>
<td>Specific phobia, needle</td>
<td>Specific phobia,</td>
<td>Specific phobia,</td>
<td>Specific phobia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>needle</td>
<td>needle</td>
<td>in remission</td>
</tr>
<tr>
<td></td>
<td>Dysthymia</td>
<td>Dysthymia</td>
<td>Dysthymia</td>
<td>Dysthymia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BPD</td>
<td>BPD</td>
<td>BPD in remission</td>
</tr>
<tr>
<td>P6</td>
<td>MDD</td>
<td>MDD in remission</td>
<td>Not assessed</td>
<td>MDD in remission</td>
</tr>
<tr>
<td></td>
<td>Obsessive–compulsive disorder (OCD)</td>
<td>OCD</td>
<td>OCD</td>
<td>OCD</td>
</tr>
<tr>
<td>P7</td>
<td>GAD</td>
<td>GAD</td>
<td>GAD</td>
<td>GAD in remission</td>
</tr>
<tr>
<td>P8</td>
<td>GAD</td>
<td>GAD</td>
<td>GAD</td>
<td>GAD in remission</td>
</tr>
<tr>
<td>Panic disorder with agoraphobia (PDw/A)</td>
<td>PDw/A in remission</td>
<td>PDw/A in remission</td>
<td>PDw/A in remission</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>SAD</td>
<td>SAD</td>
<td>SAD</td>
<td>SAD</td>
<td></td>
</tr>
<tr>
<td>BPD</td>
<td>BPD</td>
<td>BPD in remission</td>
<td>BPD in remission</td>
<td></td>
</tr>
</tbody>
</table>
Figure 1. Scores over time on the Borderline Symptom List Global Scale.

Participant 1 Borderline Symptom List Global Scale

Participant 2 Borderline Symptom List Global Scale
Unified Treatment for Borderline Personality Disorder

Participant 5 Borderline Symptom List Global Scale

Score

Baseline  Treatment  Follow-up

Participant 6 Borderline Symptom List Global Scale

Score

Baseline  Treatment  Follow-up
Highlights

- We evaluated the efficacy of the unified protocol (UP) in individuals with borderline personality disorder (BPD).
- The majority of participants no longer met criteria for BPD at follow-up.
- The UP may serve as a practice alternative for individuals with BPD.