

Transferred Focused Psychotherapy vs Dialectical Behaviour Therapy for the treatment of Borderline Personality Disorder: A review of the current RCT-based literature

Andreas Tsirides, Triantafilia Iliopoulou, Penelope Louka

Psychology Department, Mediterranean College, Greece

Abstract

Borderline personality disorder (BPD) is a persistent pattern of instability in terms of emotion regulation, impulsivity, self-image, interpersonal relationships with extreme 'splitting' between idealisation and devaluation of others, including also stress-related paranoid ideation and dissociative symptoms. Self-harming behaviour is also common amongst BPD patients. The manifestation of these symptoms may lead to serious disturbances of quality of life for patients, families and their significant others along with problems in professional and personal development. Several evidence-based psychotherapeutic approaches have been developed to address these issues. In this review two of them were put into scrutiny; Dialectical Behaviour Therapy or DBT, and Transference-Focused Psychotherapy or TFP. These were reviewed by examining RCT studies published in Cochrane and Clinicaltrials.gov databases. The efficacy of these two interventions was examined on similar outcomes, such as therapy dropout, general BPD symptoms, global functioning, self-harm, and social adaptation. No prominent superiority for either of the treatments in comparison was identified, however both TFP and DBT show greater efficacy when compared to other, non-BPD specific psychotherapeutic approaches.

Key words: Borderline Personality Disorder (BPD), Dialectical Behaviour Therapy (DBT), Transference-Focused Psychotherapy (TFP)

Corresponding author: Andreas Tsirides Psychology Department, Mediterranean College, Greece, e-mail: a.tsiridis@mc-class.gr

Introduction

Borderline personality disorder (BPD) is manifested as a set of persistent patterns of volatile emotion regulation, impulsivity, fluctuations of self-image, and unstable interpersonal relationships, all causing serious disruptions and degradation of the quality of life for patients and people around them [1,2]. As a term, 'borderline personality' was introduced by Stern [3] to describe patients who could fit neither into the psychotic nor the neurotic group, but rather bordered them both. 'Borderline personality organisation' was introduced almost three decades later by Kernberg [4], as a pattern of behaviour and functioning characterised by instability and disturbed psychological self-organisation, including prominent transitions between confidence and despair, rapid mood changes, a constant fear of rejection and abandonment, suicidal thoughts and self-harm. The conceptualization of BPD has changed significantly over the years as the initial psychoanalytic construct that lasted for almost five decades has been gradually transformed into a flourishing and multidisciplinary area of empirical psychological research [5].

According to the DSM-5 [2], BPD patients may have unstable self-image and sense of self; they may form unstable and intense interpersonal relationships characterised by extreme 'splitting' between idealisation and devaluation of others; they may suffer from several debilitating symptoms, such as emotional instability, inappropriate and uncontrollable anger, emotional instability, and chronic feelings of emptiness; they often experience fear of abandonment – real or imaginary – along with frantic efforts to avoid it; they may experience brief stress-related paranoid ideation and dissociative symptoms, and may also manifest a highly impulsive and potentially self-harming behaviour –including self-injury and suicide. Symptoms usually impose a disruptive and debilitating everyday life for patients, their families and significant others along with problems with their professional lives and personal development in general [6]. As such, BPD patients require therapeutic approaches that specifically address the issues that arise from their condition in a goal-oriented manner. Numerous evidence-based psycho-

therapeutic approaches have been developed to address BPD [7]; some of them are Mentalization-Based Therapy or MBT [8], Schema Focused Therapy or SFT [9], Dialectical Behaviour Therapy or DBT [10], and Transference-Focused Psychotherapy or TFP [4], with the latter two being the focus of this review. It is worth mentioning that nowadays, psychotherapy is considered the primary treatment recommended for BPD patients, rather than pharmacotherapy [11].

This review aims to assess and compare the efficacy of DBT and TFP approaches for adult populations. An attempt is made to examine possible differences in efficacy between the two aforementioned psychological interventions over adult BPD outpatients, by examining the most recent relevant RCT studies published, either directly examining the two approaches or by extracting data from studies where one of the two were compared to other approaches, BPD-specific or not. The interventions are assessed by examining the literature for their outcomes in terms of reduction of BPD symptoms such as self-harm and suicidality, impulsivity, aggression, social adjustment, psychosocial functioning, but also in terms of patient retention in therapy, as the latter is considered paramount for effective treatment [12]. For this purpose, 6 main RCT articles have been selected and their main common variables and outcomes have been identified (see Appendix 1); results are compared.

Method

The reviewed RCT studies were selected through the Cochrane and Clinicaltrials.gov databases. The initial search timeframe was set between 2010-2020 and included studies examining the efficacy of DBT and / or TFP on BPD adult outpatients, in contrast to several other types of interventions, such as Mentalisation-Based Therapy (MBT), Schema-Focused Therapy (SFT), Community Treatment By Experts (CTBE), Collaborative Assessment and Management of Suicidality (CAMS), or in contrast to patients being in Waiting Lists, receiving Treatment-As-Usual or no treatment at all. The databases were searched using the following keywords/keyphrases and their abbreviations: 'Borderline

Personality Disorder', 'Dialectical Behaviour Therapy', 'Transference-Focused Psychotherapy', and 'Randomised Clinical Trial'. Due to time and resource limitations preventing a formal translation, the search included only studies published in English. An attempt was made to choose an equal number of RCT studies per intervention. However, it seems that TFP research using RCT is extremely limited, with only one study being published in the last decade by Doering et al. [13], and several others reassessing the same data; several other studies may appear as 'ongoing' in clinicaltrials.gov, but no results have been published up to the date this review was written. Thus, the research timeframe was expanded to include two RCT studies from Giesen-Bloo et al. [14] and Clarkin et al. [15].

DBT uses a psychiatric frame of reference whereas TFP is psychodynamic; for reviewing purposes the DSM-5 definition of BPD is used, despite that there are several differences between the definitions, based on the different theoretical frameworks they are grounded. To address this disparity and to create a common ground to assess the efficacy of the two interventions, the variables and outcomes of each study were identified; several main common points of focus were found, and findings are critically appraised in terms of strengths and limitations, as well as per the reliability and validity of studies supporting each intervention.

Outlines and theoretical backgrounds of DBT and TFP

DBT is an evidence-based, intensive, structured and manualised cognitive-behavioural treatment for outpatients diagnosed for BPD. It is a multi-modal treatment programme initially devised for women who inflict self-harm; however, it has since been applied to other populations [10]. It includes four treatment stages, each with a different focus: the pre-treatment stage is focused on behaviour control. The second stage is focused on the emotional processing of the past. In the third stage, everyday issues are addressed. Finally, in the fourth stage, the patient develops the ability to sustain joy in his life. However, in most public healthcare

settings only the two first stages are provided [16]. Subsequently, current studies in DBT mainly focus on the first and second stages, as they are considered the most important for the patients to control their behaviour, thus helping their individual development, maintain their motivation for therapy, while decreasing self-suicidal and non-suicidal (NSSI) self-harm and other impulsive behaviours such as substance abuse and binge eating [14].

TFP is also a highly structured and manualized treatment for BPD. Its central conceptual element is the individual's failure to develop psychological maturity and the lack of complex, coherent and realistic representations of self and others. Distorted and incoherent representations inhibit the ability to reflect on interpersonal interactions and personal beliefs; prevent the patient from behaving in a consistently considerate goal-driven manner; abrupt fluctuations of affect and 'black and white' thinking occur, impairing everyday interactions. This pattern of thinking and behaviour is described as an 'identity diffusion' [17], a psychodynamic term similar to the 'identity disturbance' described in the DSM-5. Like most BPD-oriented treatments, TFP also focuses on symptoms reduction like self-destructive behaviour, anger and hostility, while it attempts to achieve change by resolving disturbances of identity, and by augmenting the ability of patients to integrate the fragmented mental depictions of their self and significant others by assessing the transference into the present therapeutic relationship [17]. Consequently, better behaviour control and emotion regulations are achieved, impulsivity is reduced, leading to the development of an ability to handle intimacy in relationships and emotional skills to achieve a fulfilling life.

Results on Suicidal or Non-Suicidal self-harm

The absence of a single, unifying conceptualization regarding self-harm, suicidal or not, posits an inherent limitation when attempting to assess such behaviours. Nevertheless, they have been the focus of a great amount of research, as they are considered major public health concerns related to death by suicide; it is a point of debate whether self-harm

without suicidal intent and suicide attempts are distinct behaviours or part of a continuum, as the motives beneath them are multiple and fluid [18]. Regardless of patients' underpinning motives and intentions, DBT and TFP theorists and practitioners consider the reduction of Self-Harm (SH) incidents of all kinds, a major objective of their intervention [19]. As such, all but one studies assessed in this review examined treatment efficacy particularly towards the aforementioned goal, either by examining them as a unifying element or by separating them into different, like Deliberate Self-Harm (DSH), Non-Suicidal Self Injury (NSSI), Suicide Attempts (SA) or otherwise specified (see Appendix 1), either as part of the main BPD symptoms in an integrated measure, containing a Parasuicidal factor e.g. Giesen-Bloo et al. [14]. In the absence of a unified term and, subsequently measure for this cluster of behaviours the term 'Self-Harming, Suicidal & Parasuicidal Behaviour' (SHSPB) will be used for reviewing purposes only, although it is acknowledged that each behaviour may be distinct.

All studies currently reviewed report DPD and TFP as better, or at least equally effective with compared interventions and in comparison to baselines, regarding SHSPB. Clarkin et al. [15], in the only study in which the two interventions are set in a head-to-head comparison, reported equally significant and similar effect sizes and no significant between-group comparison in the predictability of improvement of SHSPB; both interventions were more predictive of positive change. Interestingly, Doering et al. [13] assessing TFP patients, reported a significant drop in presence and numbers of suicide attempts, but not in self-injury, attributing this fact to the possibility that improvement may become more evident in more severe self-harming behaviours, whereas the less severe may remain unchanged; this assumption, however, should be cautiously considered, as it is based on a previous study by Verheul et al. [20] focusing on DBT, not TFP. Giesen-Bloo et al. [14], comparing TFP with SFT also reported a significant reduction of Parasuicidal Behaviour, but only in comparison to baseline, while SFT seemed superior in effect. On the same notion, Andreasson et al. [21], examined NSSI and SA, both separately and

combined (as DSH) for patients undergoing DBT vs CAMS; efficacy was measured after the completion of a 16-month treatment and a significant improvement between baseline and 12 months after completion was noted, but non-significant between-group differences. Similar were the results for Suicidal Ideation (suicidal thoughts that mostly do not escalate to SA [2]).

McMain et al. [22] examined the efficacy of 20 weeks of short-term DBT vs Waiting List (WL) on suicidal patients. Two instruments for self-harm and suicide attempts were used in this study, one being self-reporting Deliberate Self-Harm Inventory (DSHI), while the other being interview-based Lifetime Suicide Attempt and Self Injury (LSASI). Results were marginally significant in favour of DBT vs WL only in the interview based LSASI measurement and only for one year after patient discharge. Both groups yielded some improvement during, at time of completion, and one year after. Interestingly, researchers reported that *'the DBT group showed superior improvements in the reduction of self-destructive (e.g. suicidal and self-harm) behaviours'* [23]; technically, this statement is accurate. However, given the marginal results, a more tentative and cautious stance would have been more appropriate. This argument for caution may further be reinforced by the fact that during the study *'ancillary treatments were not excluded'* [23] and may have had some confounding effect.

Results on Dropout, general BPD symptoms, global functioning and social adaptation

Both interventions reported similarly substantial dropout. Differences in intervention duration and protocols defining dropout may prevent direct comparison of the results. However, the accumulated rate is reported for reviewing purposes. Out of the 118 patients enrolled for TFP after baseline assessment 42 discontinued treatment, reporting a dropout rate of 35.6%. For the DBT the rate was 36.4%, with 60 out of 165 patients dropping out.

All studies reviewed examined the prevalence and intensity of BPD symptoms as they are defined in DSM-5 / DSM-IV, with one exception: Carter et al. [24], possibly attempting

to examine the disorder in a more pragmatic approach, focused on the 'real-life' consequences by measuring Disability and Quality of Life after 6 months of DBT, in both measures favouring the latter vs. TAU/WL. Disability scores were assessed employing a self-reporting instrument measuring the 'days out of role'; however, it should be noted that the everyday life of some participants had been already disrupted by the time of the study; e.g. 81% of the participants were either unemployed or out of labour force, thus the very meaning of 'days out of role' is hard to construe.

An interesting outcome may be observed regarding the permanence of long term effects of the intervention: McMain et al. [22] reported that DBT was significantly reduced BPD symptoms and improved social adjustment immediately upon treatment completion, though the positive effects deteriorated after 12 months. This effect was not present regarding SHSPB, as positive results were maintained.

Andreasson et al. [21] also observed significant efficacy 12 months after DBT for all domains examined; however, when compared to CAMS, DBT was found to be either inferior (BPD severity, Depression, Hopelessness) or not significantly different (Suicidal Ideation, Self-Esteem).

Clarkin et al. [15] reported that the prediction of slope (change) was of significant improvement for both interventions for depression, anxiety, social adjustment and global functioning. However, between the two, only TFP was significantly related to improvement in anger, and only partially related to impulsivity. TFP was also measured as superior in effect compared to DBT regarding irritability, verbal and direct assault. In terms of real-life improvements, both interventions were significantly beneficial in terms of global functioning and social adjustment, without significant between-group differences.

Measuring similar outcomes, Giesen-Bloo et al. [14] also reported significant potency of TFP over three years of therapy in reduction of BPD symptoms, along with a small, but significant increase in quality of life, measured by perceived general physiological and psychological health, but also in personal beliefs, social relationships, and independence.

However, results were favourable for TFP in comparison to Schema Focused Therapy (SFT).

Discussion

This review attempted to examine the efficacy of two BPD-specific evidence-based approaches of psychotherapy, namely DBT and TFP, by examining the available RCT literature. Only one study assessed DBT vs TFP in direct comparison. These two interventions originated in two very distinct schools of thought and use different ways to reach their goals. DBT attempts to reduce the self-destructive psychopathologic dysfunction mostly by cognitive control of the behaviour and emotion [10], whereas TFP attempts to change the sense of self and others, through an overall personality shift [17]. To create a framework for comparison, the outcomes for each study were identified; outcome similarities were isolated, and the efficacy of interventions in question was examined over them. The maximum level of similarity is considered when the instruments used were identical. As this was not always the case, in many cases similarity of outcomes was determined by using formal definitions, to minimise subjectivity.

Linehan et al. [25] argue that DBT is more effective from other treatment models in reducing suicidal behaviour for patients at high-risk. This claim seems justified when DBT is compared with non-BPD oriented therapeutic approaches. Clarkin et al. [15] specifically examined DBT and TFP and found no differences between them regarding SHSPB, but favours TFP for general BPD symptoms and social adjustment, depression and anxiety. However, no study attempted to replicate or falsify these findings to date. Accordingly, the superiority of TFP was evident only when compared to CTBE [13], but was found inferior compared to SFT, an approach encompassing cognitive-behavioural, interpersonal and experiential elements [14].

There seems to be some evidence for both DBT and TFP efficacy compared to non-BPD oriented therapies. Also, BPD-specific approaches, regardless of between-group significance, seem to be more efficacious when compared to

non-BPD-specific. Paris [26], claims that when non-BPD psychotherapy is employed it does not work, as most therapists are trained to offer some degree of validation; contrastingly BPD-specific therapists offer a more sophisticated mix of empathy and confrontation, in order to promote change, as validation alone may not work with BPD patients, who they tend to misunderstand and distort their interpersonal environment. Most studies comparing BPD-specific approaches show significant improvement between baseline and completion measurements. However, this notion is challenged for DBT as Carter et al. [24], found no significant difference between DBT and a group of TAU patients treated by psychiatrists or public mental health services; in lay terms, it is suggested that it is better to have any form of talk-therapy, even a non-BPD oriented talk-therapy, than no therapy at all.

Apart from RCT studies, some evidence supporting TFP and DBT for BPD also exists in the neurobiological domain, with fMRI scans showing alterations of activations of brain regions related to stress, anxiety, and emotion regulation for both TFP [27] and DBT patients [28]. However, no concrete evidence in favour of one of them over the other was found, as results point out towards effectiveness for both interventions, but without any results consistently pointing out towards any prominent feature offering some edge for one over the other in any of the outcomes examined.

Several limitations should be noticed in this literature review. An attempt was made to assess efficacy in similar or identical outcomes. However, uniformity may only be partially achieved; despite the effort to keep subjectively when assessing similarities of outcomes at a minimum, discrepancies in data input and terminology may inherit some arbitrariness in the research process and, subsequently, to the evaluation of the results.

One of the most crucial factors in the therapeutic process is the therapist's competency; In all studies reviewed, therapists were reported as being well trained on their approach and experienced; however, it is practically impossible to ensure uniformity in the administration of each therapeutic approach, as such a fundamental element cannot be measured and acts as a confounding agent.

The control groups or control conditions in the reviewed studies were not uniform; in some cases, WL and / or TAU had been used, whereas in other cases patients in ancillary support and / or taking medication were not excluded from participation (see Appendix 2). It has been reported that being in a WL for psychotherapy is not therapeutically neutral, as improvements or negative ('nocebo') effects may be observed [29,30]. Thus, confounding factors may be present, and some effect may be attributed to factors other from psychotherapy.

The studies reviewed used mostly self-reporting or interview-based measures. To preserve blindness, therapists and assessors were different people; however, responder and researcher bias issues should be considered [31]. SHSPB was also mainly self-reported in all studies, apart from the one conducted by Carter et al. [24] who used hospital records of self-sustained harm; this method may be considered more reliable, as the injury is reported by the medical staff and not only by patients. On the other hand, self-harm incidents that did not end up in a hospital may have been omitted.

It should be noted that the samples of all studies reviewed were relatively small, thus generalisation issues may exist. Moreover, in all reviewed studies the great majority of participants were female, with ratio reaching almost 80/20. However, even though there are gender differences in BPD prevalence, the ratio in reality may be different [32].

In conclusion, the current review could not identify superiority for any of the two BPD-oriented treatments in question. However, RCT data for TFP is more than a decade old, and therefore more studies should attempt to assess TFP efficacy and compare it with DBT, as the most recent is from 2007. As both interventions have strengths, it might also be useful for clinical practice to focus research studies on the efficacy of more eclectic and integrated therapeutic interventions, informing social workers of their efficacy, thus allowing them to map which one is more suitable for which client to maximise benefits for BPD patients.

References

- Bloom, J. M., Woodward, E. N., Susmaras, T., & Pantalone, D. W. (2012). Use of Dialectical Behavior Therapy in Inpatient Treatment of Borderline Personality Disorder: A Systematic Review. *Psychiatric Services, 63*(9), 881-888. doi:10.1176/appi.ps.201100311
- APA. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*: American Psychiatric Pub.
- Stern, A. (1938). Psychoanalytic Investigation of and Therapy in the Border Line Group of Neuroses. *The Psychoanalytic Quarterly, 7*(4), 467-489. doi:10.1080/21674086.1938.11925367
- Kernberg, O. (1967). Borderline Personality Organization. *Journal of the American Psychoanalytic Association, 15*(3), 641-685. doi:10.1177/000306516701500309
- Bradley, R., & Westen, D. (2005). The psychodynamics of borderline personality disorder: A view from developmental psychopathology. *Development and Psychopathology, 17*(04). doi:10.1017/s0954579405050443
- Lawn, S., & McMahon, J. (2015). Experiences of family carers of people diagnosed with borderline personality disorder. *Journal of Psychiatric and Mental Health Nursing, 22*(4), 234-243. doi:10.1111/jpm.12193
- Choi-Kain, L. W., Finch, E. F., Masland, S. R., Jenkins, J. A., & Unruh, B. T. (2017). What Works in the Treatment of Borderline Personality Disorder. *Current Behavioral Neuroscience Reports, 4*(1), 21-30. doi:10.1007/s40473-017-0103-z
- Bateman, A., & Fonagy, P. (2010). Mentalization based treatment for borderline personality disorder. *World Psychiatry, 9*(1), 11-15. doi:10.1002/j.2051-5545.2010.tb00255.x
- McGinn, L. K., & Young, J. E. (1996). Schema-focused therapy.
- Linehan, M. M. (1993). *Cognitive-Behavioral Treatment of Borderline Personality Disorder*: Guilford Publications.
- Buchheim, A., Hörz-Sagstetter, S., Doering, S., Rentrop, M., Schuster, P., Buchheim, P., . . . Fischer-Kern, M. (2017). Change of unresolved attachment in borderline personality disorder: RCT study of transference-focused psychotherapy. *Psychotherapy and Psychosomatics, 86*(5), 314-316. doi:10.1159/000460257
- Roos, J., & Werbart, A. (2013). Therapist and relationship factors influencing dropout from individual psychotherapy: A literature review. *Psychotherapy Research, 23*(4), 394-418. doi:10.1080/10503307.2013.775528
- Doering, S., Hörz, S., Rentrop, M., Fischer-Kern, M., Schuster, P., Benecke, C., ... Buchheim, P. (2010). Transference-focused psychotherapy v. treatment by community psychotherapists for borderline personality disorder: randomised controlled trial. *British Journal of Psychiatry, 196*(5), 389-395. doi:10.1192/bjp.bp.109.070177
- Giesen-Bloo, J., Van Dyck, R., Spinhoven, P., Van Tilburg, W., Dirksen, C., Van Asselt, T., ... Arntz, A. (2006). Outpatient Psychotherapy for Borderline Personality Disorder. *Archives of General Psychiatry, 63*(6), 649. doi:10.1001/archpsyc.63.6.649
- Clarkin, J. F., Levy, K. N., Lenzenweger, M. F., & Kernberg, O. F. (2007). Evaluating Three Treatments for Borderline Personality Disorder: A Multiwave Study. *American Journal of Psychiatry, 164*(6), 922-928. doi:10.1176/ajp.2007.164.6.922
- NICE. (2009). *Borderline Personality Disorder: Treatment and Management*. London, UK: The British Psychological Society & The Royal College of Psychiatrists.
- Kernberg, O. F., Yeomans, F. E., Clarkin, J. F., & Levy, K. N. (2008). Transference focused psychotherapy: Overview and update. *The International Journal of Psychoanalysis, 89*(3), 601-620. doi:10.1111/j.1745-8315.2008.00046.x
- O'Connor, R. C., Wetherall, K., Cleare, S., Eschle, S., Drummond, J., Ferguson, E., ... O'Carroll, R. E. (2018). Suicide attempts and non-suicidal self-harm: national prevalence study of young adults. *BJPsych Open, 4*(3), 142-148. doi:10.1192/bjo.2018.14
- Bliss, S., & McCardle, M. (2014). An Exploration of Common Elements in Dialectical Behavior Therapy, Mentalization Based Treatment and Transference Focused Psychotherapy in the Treatment of Borderline Personality Disorder. *Clinical Social Work Journal, 42*(1), 61-69. doi:10.1007/s10615-013-0456-z
- Verheul, R., Van Den Bosch, L. M. C., Koeter, M. W. J., De Ridder, M. A. J., Stijnen, T., & Van Den Brink, W. (2003). Dialectical behaviour therapy for women with borderline personality disorder. *British Journal of Psychiatry, 182*(2), 135-140. doi:10.1192/bjp.182.2.135
- Andreasson, K., Krogh, J., Wenneberg, C., Jessen, H. K. L., Krakauer, K., Gluud, C., ... Nordentoft, M. (2016). Effectiveness of Dialectical Behavior Therapy versus Collaborative Assessment and Management of Suicidality Treatment for

- reduction of self harm in adults with Borderline Personality Traits and Disorder -A randomized observer-blinded clinical trial. *Depression and Anxiety*, 33(6), 520-530. doi:10.1002/da.22472
22. McMain, S. F., Guimond, T., Barnhart, R., Habinski, L., & Streiner, D. L. (2017). A randomized trial of brief dialectical behaviour therapy skills training in suicidal patients suffering from borderline disorder. *Acta Psychiatrica Scandinavica*, 135(2), 138-148. doi:10.1111/acps.12664
 23. McMain, S. F., Chapman, A. L., Kuo, J. R., Guimond, T., Streiner, D. L., Dixon-Gordon, K. L., ... Hoch, J. S. (2018). The effectiveness of 6 versus 12-months of dialectical behaviour therapy for borderline personality disorder: the feasibility of a shorter treatment and evaluating responses (FASTER) trial protocol. *BMC Psychiatry*, 18(1). doi:10.1186/s12888-018-1802-z
 24. Carter, G. L., Willcox, C. H., Lewin, T. J., Conrad, A. M., & Bendit, N. (2010). Hunter DBT Project: Randomized Controlled Trial of Dialectical Behaviour Therapy in Women with Borderline Personality Disorder. *Australian & New Zealand Journal of Psychiatry*, 44(2), 162-173. doi:10.3109/00048670903393621
 25. Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard, H. L., ... Lindenboim, N. (2006). Two-Year Randomized Controlled Trial and Follow-up of Dialectical Behavior Therapy vs Therapy by Experts for Suicidal Behaviors and Borderline Personality Disorder. *Archives of General Psychiatry*, 63(7), 757. doi:10.1001/archpsyc.63.7.757
 26. Paris, J. (2010). Effectiveness of different psychotherapy approaches in the treatment of borderline personality disorder. *Curr Psychiatry Rep*, 12(1), 56-60. doi:10.1007/s11920-009-0083-0
 27. Perez, D. L., Vago, D. R., Pan, H., Root, J., Tuescher, O., Fuchs, B. H., ... Stern, E. (2016). Frontolimbic neural circuit changes in emotional processing and inhibitory control associated with clinical improvement following transference-focused psychotherapy in borderline personality disorder. *Psychiatry and Clinical Neurosciences*, 70(1), 51-61. doi:10.1111/pcn.12357
 28. Goodman, M., Carpenter, D., Tang, C. Y., Goldstein, K. E., Avedon, J., Fernandez, N., ... Hazlett, E. A. (2014). Dialectical behavior therapy alters emotion regulation and amygdala activity in patients with borderline personality disorder. *Journal of Psychiatric Research*, 57, 108-116. doi:10.1016/j.jpsychires.2014.06.020
 29. Zhu, Z., Zhang, L., Jiang, J., Li, W., Cao, X., Zhou, Z., ... Li, C. (2014). Comparison of psychological placebo and waiting list control conditions in the assessment of cognitive behavioral therapy for the treatment of generalized anxiety disorder: a meta-analysis. *Shanghai archives of psychiatry*, 26(6), 319-331. doi:10.11919/j.issn.1002-0829.214173
 30. Young, C. (2006). *Waiting for therapy: the personal experience and psychological effects of being on an NHS waiting list for cognitive psychotherapy*. University of Essex,
 31. Haeffel, G. J., & Howard, G. S. (2010). Self-report: psychology's four-letter word. *Am J Psychol*, 123(2), 181-188. doi:10.5406/amerjpsyc.123.2.0181
 32. Busch, A. J., Balsis, S., Morey, L. C., & Oltmanns, T. F. (2016). Gender Differences in Borderline Personality Disorder Features in an Epidemiological Sample of Adults Age 55–64: Self Versus Informant Report. *Journal of Personality Disorders*, 30(3), 419-432. doi:10.1521/pedi_2015_29_202
1. Bloom, J. M., Woodward, E. N., Susmaras, T., & Pantalone, D. W. (2012). Use of Dialectical Behavior Therapy in Inpatient Treatment of Borderline Personality Disorder: A Systematic Review. *Psychiatric Services*, 63(9), 881-888. doi:10.1176/appi.ps.201100311
 2. APA. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*: American Psychiatric Pub.
 3. Stern, A. (1938). Psychoanalytic Investigation of and Therapy in the Border Line Group of Neuroses. *The Psychoanalytic Quarterly*, 7(4), 467-489. doi:10.1080/21674086.1938.11925367
 4. Kernberg, O. (1967). Borderline Personality Organization. *Journal of the American Psychoanalytic Association*, 15(3), 641-685. doi:10.1177/000306516701500309
 5. Bradley, R., & Westen, D. (2005). The psychodynamics of borderline personality disorder: A view from developmental psychopathology. *Development and Psychopathology*, 17(04). doi:10.1017/s0954579405050443
 6. Lawn, S., & McMahon, J. (2015). Experiences of family carers of people diagnosed with borderline personality disorder. *Journal of Psychiatric and Mental Health Nursing*, 22(4), 234-243. doi:10.1111/jpm.12193
 7. Choi-Kain, L. W., Finch, E. F., Masland, S. R., Jenkins, J. A., & Unruh, B. T. (2017). What Works in the Treatment of Borderline Personality Disorder. *Current Behavioral Neuroscience Reports*, 4(1), 21-30. doi:10.1007/s40473-017-0103-z

8. Bateman, A., & Fonagy, P. (2010). Mentalization based treatment for borderline personality disorder. *World Psychiatry, 9*(1), 11-15. doi:10.1002/j.2051-5545.2010.tb00255.x
9. McGinn, L. K., & Young, J. E. (1996). Schema-focused therapy.
10. Linehan, M. M. (1993). *Cognitive-Behavioral Treatment of Borderline Personality Disorder*: Guilford Publications.
11. Buchheim, A., Hörz-Sagstetter, S., Doering, S., Rentrop, M., Schuster, P., Buchheim, P., ... Fischer-Kern, M. (2017). Change of unresolved attachment in borderline personality disorder: RCT study of transference-focused psychotherapy. *Psychotherapy and Psychosomatics, 86*(5), 314-316. doi:10.1159/000460257
12. Roos, J., & Werbart, A. (2013). Therapist and relationship factors influencing dropout from individual psychotherapy: A literature review. *Psychotherapy Research, 23*(4), 394-418. doi:10.1080/10503307.2013.775528
13. Doering, S., Hörz, S., Rentrop, M., Fischer-Kern, M., Schuster, P., Benecke, C., ... Buchheim, P. (2010). Transference-focused psychotherapy v. treatment by community psychotherapists for borderline personality disorder: randomised controlled trial. *British Journal of Psychiatry, 196*(5), 389-395. doi:10.1192/bjp.bp.109.070177
14. Giesen-Bloo, J., Van Dyck, R., Spinhoven, P., Van Tilburg, W., Dirksen, C., Van Asselt, T., ... Arntz, A. (2006). Outpatient Psychotherapy for Borderline Personality Disorder. *Archives of General Psychiatry, 63*(6), 649. doi:10.1001/archpsyc.63.6.649
15. Clarkin, J. F., Levy, K. N., Lenzenweger, M. F., & Kernberg, O. F. (2007). Evaluating Three Treatments for Borderline Personality Disorder: A Multiwave Study. *American Journal of Psychiatry, 164*(6), 922-928. doi:10.1176/ajp.2007.164.6.922
16. NICE. (2009). *Borderline Personality Disorder: Treatment and Management*. London, UK: The British Psychological Society & The Royal College of Psychiatrists.
17. Kernberg, O. F., Yeomans, F. E., Clarkin, J. F., & Levy, K. N. (2008). Transference focused psychotherapy: Overview and update. *The International Journal of Psychoanalysis, 89*(3), 601-620. doi:10.1111/j.1745-8315.2008.00046.x
18. O'Connor, R. C., Wetherall, K., Cleare, S., Eschle, S., Drummond, J., Ferguson, E., ... O'Carroll, R. E. (2018). Suicide attempts and non-suicidal self-harm: national prevalence study of young adults. *BJPsych Open, 4*(3), 142-148. doi:10.1192/bjo.2018.14
19. Bliss, S., & McCardle, M. (2014). An Exploration of Common Elements in Dialectical Behavior Therapy, Mentalization Based Treatment and Transference Focused Psychotherapy in the Treatment of Borderline Personality Disorder. *Clinical Social Work Journal, 42*(1), 61-69. doi:10.1007/s10615-013-0456-z
20. Verheul, R., Van Den Bosch, L. M. C., Koeter, M. W. J., De Ridder, M. A. J., Stijnen, T., & Van Den Brink, W. (2003). Dialectical behaviour therapy for women with borderline personality disorder. *British Journal of Psychiatry, 182*(2), 135-140. doi:10.1192/bjp.182.2.135
21. Andreasson, K., Krogh, J., Wenneberg, C., Jessen, H. K. L., Krakauer, K., Gluud, C., ... Nordentoft, M. (2016). Effectiveness of Dialectical Behavior Therapy versus Collaborative Assessment and Management of Suicidality Treatment for reduction of self harm in adults with Borderline Personality Traits and Disorder -A randomized observer-blinded clinical trial. *Depression and Anxiety, 33*(6), 520-530. doi:10.1002/da.22472
22. McMains, S. F., Guimond, T., Barnhart, R., Habinski, L., & Streiner, D. L. (2017). A randomized trial of brief dialectical behaviour therapy skills training in suicidal patients suffering from borderline disorder. *Acta Psychiatrica Scandinavica, 135*(2), 138-148. doi:10.1111/acps.12664
23. McMains, S. F., Chapman, A. L., Kuo, J. R., Guimond, T., Streiner, D. L., Dixon-Gordon, K. L., ... Hoch, J. S. (2018). The effectiveness of 6 versus 12-months of dialectical behaviour therapy for borderline personality disorder: the feasibility of a shorter treatment and evaluating responses (FASTER) trial protocol. *BMC Psychiatry, 18*(1). doi:10.1186/s12888-018-1802-z
24. Carter, G. L., Willcox, C. H., Lewin, T. J., Conrad, A. M., & Bendit, N. (2010). Hunter DBT Project: Randomized Controlled Trial of Dialectical Behaviour Therapy in Women with Borderline Personality Disorder. *Australian & New Zealand Journal of Psychiatry, 44*(2), 162-173. doi:10.3109/00048670903393621
25. Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard, H. L., ... Lindenboim, N. (2006). Two-Year Randomized Controlled Trial and Follow-up of Dialectical Behavior Therapy vs Therapy by Experts for Suicidal Behaviors and Borderline Personality Disorder. *Archives of General Psychiatry, 63*(7), 757. doi:10.1001/archpsyc.63.7.757
26. Paris, J. (2010). Effectiveness of different psychotherapy approaches in the treatment of borderline personality disorder.

- Curr Psychiatry Rep*, 12(1), 56-60. doi:10.1007/s11920-009-0083-0
27. Perez, D. L., Vago, D. R., Pan, H., Root, J., Tuescher, O., Fuchs, B. H., . . . Stern, E. (2016). Frontolimbic neural circuit changes in emotional processing and inhibitory control associated with clinical improvement following transference-focused psychotherapy in borderline personality disorder. *Psychiatry and Clinical Neurosciences*, 70(1), 51-61. doi:10.1111/pcn.12357
28. Goodman, M., Carpenter, D., Tang, C. Y., Goldstein, K. E., Avedon, J., Fernandez, N., . . . Hazlett, E. A. (2014). Dialectical behavior therapy alters emotion regulation and amygdala activity in patients with borderline personality disorder. *Journal of Psychiatric Research*, 57, 108-116. doi:10.1016/j.jpsychires.2014.06.020
29. Zhu, Z., Zhang, L., Jiang, J., Li, W., Cao, X., Zhou, Z., . . . Li, C. (2014). Comparison of psychological placebo and waiting list control conditions in the assessment of cognitive behavioral therapy for the treatment of generalized anxiety disorder: a meta-analysis. *Shanghai archives of psychiatry*, 26(6), 319-331. doi:10.11919/j.issn.1002-0829.214173
30. Young, C. (2006). *Waiting for therapy: the personal experience and psychological effects of being on an NHS waiting list for cognitive psychotherapy*. University of Essex,
31. Haefel, G. J., & Howard, G. S. (2010). Self-report: psychology's four-letter word. *Am J Psychol*, 123(2), 181-188. doi:10.5406/amerjpsyc.123.2.0181
32. Busch, A. J., Balsis, S., Morey, L. C., & Oltmanns, T. F. (2016). Gender Differences in Borderline Personality Disorder Features in an Epidemiological Sample of Adults Age 55–64: Self Versus Informant Report. *Journal of Personality Disorders*, 30(3), 419-432. doi:10.1521/pedi_2015_29_202

Appendix 1: Table of RCTs with Primary & Secondary Outcomes, Instruments and Results

Abbreviations: DBT: Dialectical Behaviour Therapy. TFP: Transference Focused Therapy. CTBE: Community Therapy By Experts. SFT: Schema Focused Therapy. CAMS: Collaborative Assessment and Management of Suicidality. TAU: Treatment As Usual. DST: Dynamic Supportive Treatment. WL: Waiting List. n.s.: Non-Significant: w: Week(s)

Author(s), year	Intervention type(s)	Duration	Intervals of measurements	Primary outcomes	Instruments	Results	Secondary outcomes	Measured by	Results
McMain et al., 2017	DBT vs WL	20w	10w, 20w, 32w	Suicidal and/or NSSI episodes	Lifetime Suicide Attempt Self-Injury Interview (LSASI) Deliberate Self-Harm Inventory (DSHI)	DBT > WL (LSASI only, DSHI n.s.)	BPD symptoms	Borderline Symptom List (BSL-23)	DBT > WL effect not maintained one year after completion of intervention
				Emergency Room visits	Treatment History Interview-2 (THI-2)	10w: DBT > WL 20w: DBT > WL 32w: n.s.	Anger	State-trait anger expression inventory (STAXI)	DBT > WL
				Hospitalisation	Treatment History Interview-2 (THI-2)	10w: DBT, 20w: n.s. 32w: n.s.	Symptom Distress	The Symptom Checklist (SCL-90R)	DBT > WL effect not maintained one year after completion of intervention

				Dropout	No formal assessment	31% failed to complete DBT	Impulsiveness	Barrat Impulsiveness Scale (BIS-11)	n.s.
							Social Adjustment	Social adjustment scale-self-report (SAS-SR)	DBT > WL effect not maintained one year after completion of intervention
							Depression	Beck Depression Inventory - BDI	DBT > WL effect not maintained one year after completion of intervention
							Emotion Regulation	Difficulties in emotion regulation scale (DERS)	DBT > WL
							Distress Tolerance	Distress Tolerance Scale (DTS)	DBT > WL
							Mindfulness	Kentucky Inventory of Mindfulness Skills (KIMS)	n.s.
Andreasson et al., 2016	DBT vs CAMS	16w		Self harm (NSSI or attempt)	Self-Injury Interview (SASII)	n.s.	BPD severity	Zanarini Rating Scale (ZAN-BPD)	n.s.
				Dropout	No formal assessment	CAMS (9%) vs DBT (60%)	Depressive symptoms	Hamilton Depression Rating Scale - 17 (HDRS-17)	n.s.
							Hopelessness	Beck Hopelessness Scale (BHS)	CAMS (n.s.)
							Suicide ideation	Beck Suicide Ideation Scale (BSIS)	n.s.
							Self-Esteem	Rosenberg Self-Esteem Scale (RSE)	n.s.

Carter et al., 2010	DBT vs TAU-WL	6 months		DSH	Hospital records	Both improved, n.s. results between groups	Disability scores	Brief Disability Questionnaire (BDQ)	DBT
				Dropout	No formal assessment	20 of 38 (48%)	Quality of Life	World Health Organization Quality of Live Assessment (WHO-QOL-BREF)	DBT
Clarkin et al., 2007	DBT vs TFP vs DST	12 months	4, 8, 12 months	Suicidality	Overt Aggression Scale - Modified	DBT=TFP > DST	Anxiety	Brief Symptom Inventory (BSI)	TFP > DST > DBT
				Anger	Anger, Irritability, and Assault Questionnaire	TFP > DST > DBT	Depression	Beck Depression Inventory (BDI)	TFP > DST > DBT
				Impulsivity	Barratt Impulsiveness Scale-II	n.s.	Social Adjustment	Social Adjustment Scale (SAS)	TFP > DST > DBT
				Irritability	Anger, Irritability, and Assault Questionnaire (AIAQ)	TFP > DBT = DST	Functioning	Global Assessment of Functioning Scale (GAF)	
				Verbal Assault	Anger, Irritability, and Assault Questionnaire (AIAQ)	TFP > DST >			
				Direct Assault	Anger, Irritability, and Assault Questionnaire (AIAQ)	TFP			
				Dropout	No formal assessment	SFT: 12 of 45, TFP: 22 of 43			
Giesen-Bloo et al., 2006	TFP vs SFT	3 years	Primary: Every 3 months - Secondary: Every 6 months	BPD symptom severity	Borderline Personality Disorder Severity Index (BPDSI-IV)	SFT > TFP	QoL	World Health Organization Quality of Live Assessment (WHO-QOL-BREF)	SFT
				Dropout	No formal assessment	SFT: 12 of 45, TFP: 22 of 43			

Doering et al., 2010	TFP vs CTBE	12 months		Dropout rate	No formal assessment	TFP (67.3% v. 38.5%)	BPD symptoms (DSM-IV)	Structured Clinical Interview (SCID-I & II) for DSM-IV	TFP (42.3% v. 15.4%)
				Suicide attempts	Cornell Interview for Suicidal and Self-Harming Behavior – Self Report (CISSB) - adapted from the Parasuicidal History Interview (PHI)	TFP			TFP
							Psychosocial Functioning	Global Assessment of Functioning (GAF) scale	TFP
							Self-harming behaviour	Cornell Interview for Suicidal and Self-Harming Behavior – Self Report (CISSB) - adapted from the Parasuicidal History Interview (PHI)	n.s.
							General psychopathology	Beck Depression Inventory (BDI) State-Trait Anxiety Inventory (STAI)	TFP (n.s.)
							Psychiatric in-patient admissions	Cornell Revised Treatment History Inventory (CRTHI)	TFP
							Personality Organisation	Structured Interview of Personality Organization (STIPO)	TFP

**Appendix 2: Table of exclusion criteria relative to medication
or ancillary treatments & dropouts**

	Medication allowed (percentage of reported pharmaceutically treated cases, if reported)	Ancillary allowed	Assigned to TFP	Drop-outs	Assigned to DBT	Drop-outs
McMain et al., 2017	Yes	Yes			40	12
Andreasson et al., 2016	Yes	Yes			57	23
Carter et al., 2010	Not specified as exculsion	Not specified as exculsion			38	12
Clarkin et al., 2007	Yes (DBT: 70%; TFP: 52%)	Not specified as exculsion	30	7	30	13
Giesen-Bloo et al., 2006	Yes (Collective: 71,4%)	Not specified as exculsion	43	22		
Doering et al., 2010	Yes	Not specified as exculsion	45	13		