# Dialectical Behavioral Therapy and Eating Behavior Narrative review

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# EXTENDED SUMMARY

#### Introduction

Dialectical Behavioural Therapy (DBT) arose from the efforts of its creator, Dr. Marsha Linehan, to understand the intense emotional suffering experienced by people who committed suicidal and parasuicidal acts (García and Navarro, 2016), and who, in many cases, meet the criteria for Borderline Personality Disorder (BPD). The theoretical model is based on the biosocial theory established by Linehan, where BPD is understood as an emotionally vulnerable individual subjected to an invalidating environment, which leads to chronic emotional dysregulation (Crowell, Beauchine & Linehan, 2009). The therapy establishes the need to address severe emotional dysregulation as a synthesis between change and acceptance (Barraca, 2016). The treatment is implemented in four stages with different goals and employs four modes of therapy: individual therapy, skills training, telephone consultations and team therapy (García & Navarro, 2016).

DBT has emerged as an effective intervention for a wide range of problems with symptoms that are functionally similar to those of BPD, with generalised dysregulation being a common psychopathological mechanism (Navarro et al., 2018). In EDs, problematic behaviours (e.g. binge eating, purging) are emitted and conceptualised as dysfunctional attempts by an individual to regulate their emotions, either by refusing or eating food. An alternative model, the affective regulation model, emphasises the relationship between emotional distress and eating disorders. Stress and negative mood may be precipitants of binge eating (Safer, Telch & Agras, 2001a).

Other researchers have postulated that some patients with eating disorders exhibit excessive emotional control, such as those diagnosed with Anorexia Nervosa (AN), who may restrict food to regulate affect (Hempel, Vanderbleek, & Lynch, 2018). Currently, the most empirically tested treatments for eating disorders, Cognitive Behavioural Therapy (CBT) and IPT (Interpersonal Therapy), result in approximately 50% of patients with Bulimia Nervosa (BN) and BED (Binge Eating Disorder) remaining symptomatic after treatment (Chen & Safer, 2010).

The objective guiding the present narrative review is to analyse empirical studies published between 2000 and 2021 that apply Dialectical Behaviour Therapy to Eating Disorders. The aim is to shed light on the efficacy of DBT in eating disorders and to make suggestions for future research.

#### Design

In accordance with the criteria set out in the PRISMA Statement (Moher, Liberati, Tetzlaff, Altman, PRISMA group, 2009), a narrative review of the scientific literature in the field of eating disorders was carried out. To develop the study, I began exploring studies dealing with Eating Disorders and Dialectical Behaviour Therapy that met the following inclusion and exclusion criteria.

Inclusion criteria: (1) Empirical research and not reviews, books or manuals, (2) Presentation of eating behaviour problems with DSM-IV and DSM-V diagnosis, (3) Articles in English or Spanish, (4) Controlled studies (randomised and non-randomised; experimental or wait-list), (5) Pilot studies with control or experimental comparison group, (6) Year of publication 2000 and 2021, (8) Moderating variables (9) All age groups. Exclusion criteria: (1) Mainly pharmacological treatments, (2) Exclusion of studies adding isolated elements of DBT, DBT is not the main therapy, (3) Studies including patients who have undergone bariatric surgery.

The best performing combinations of terms for two searches of the databases used, Scopus, Web of Science and Pubmed, included: DBT, Dialectical Behaviour Therapy, Randomized Controlled Trial, Eating Disorder, Anorexia, Bulimia and Binge eating. The two searches yielded: 36 - 98 results in Scopus, 24 - 136 in Web of Science and 17-55 in Pubmed. Following these criteria, and only by reading the title, 34 articles from the two searches were established as suitable, counting duplicates. By eliminating the 12 duplicates, the number dropped to 22. This was followed by reading the abstract and full text, which led to 11 articles being discarded: 1 article after reading the full text (no control group data); 1 article in German; and 9 articles that had no comparison group or DBT was not the main therapy. Of the 12 articles, 1 was obtained from reading the included articles, which was not screened in the first instance.

#### Results

The Standford Model DBT for binge eating disorder and bulimia nervosa was the first adaptation to demonstrate efficacy through controlled trials, originally developed for adult women aged 18-65 years. It differed from standard DBT in that it employed a single 20-session treatment modality (Binge Eating Disorder 2 hours, group mode, elimination of interpersonal effectiveness module; Bulimia Nervosa 20 minutes, individual mode). Given the promising results obtained in early uncontrolled studies (Telch, Agras and Linehan, 2000) and two case reports (Safer, Telch and Agras, 2001a; Telch, 1997), DBT could be considered as a treatment possibility.

Studies for the treatment of Binge Eating Disorder included two investigations with waiting list control group (Telch, Agras & Linehan, 2001; Rahmani, Omidia, Asemi & Akbari, 2018) one study with active control group, measurement of moderating variables and with sample including men (Safer, Jo & Robinson, 2010; Safer, Jo & Robinson, 2012) one with experimental comparison group (Lammers, Vroling, Crosby & Van Strien, 2020) and one with self-help (Carter, Kenny, Singleton, Van Wijk & Heath, 2019). Finally, two pilot studies with a waiting list control group were found (Cancian, Schusteer, Patrick, Machado, Da Silva, 2017; Dastan Afshnar, Froueddin, Habibi, 2019).

Overall, significant differences in binge abstinence and decreased binge severity are reported (Telch et al., 2001; Safer et al., 2010; Rahmani et al., 2018; Cancian et al., 2017). It is also found that avoidance personality disorder and the onset of dieting and overweight acted as mediating variables in understanding binge abstinence losses at follow-up (Safer et al., 2010; Safer et al., 2012).

In studies allowing comparison with Cognitive Behavioural Therapy, it was observed that DBT and CBT were similar in terms of improvements in binge eating and vomiting reduction compared to an early favourable and rapid response group to a guided Cognitive Behavioural Therapy. In another study, CBT was more favourable in reducing binge eating at medium sizes, but the differences were not significant (Lammers et al., 2020).

Carter et al., (2019) compared three groups, a DBT-guided and unguided group and an unguided selfesteem self-help control group; reporting significant decreases in binge eating and remissions, with large and medium effect sizes and no differences between groups.

Regarding Bulimia Nervosa studies, one control group study (Safer, Telch and Agras, 2001a) and one adapted pilot study "appetite-focused DBT" (Craighead, Safer, 2011) are reported with significant reductions relative to the control group in the number of binges and purges, medium and large effect sizes, abstinence

rates between 28.6% (0% for the control group) and 26.9% in binge eating and purging compared to the waiting list.

Only one pilot study was found with comorbidity between BPD and ACT and comparison group CBT (Navarro et al., 2018). DBT showed a statistically significant and greater decrease compared to CBT in frequency of dysfunctional behaviours, depression and use of reappraisal as an emotion regulation strategy.

There are reports of studies indicating a decrease in intake in response to negative emotional states, such as anger, depression and anxiety. In some studies this occurs at post-treatment, but is no longer observed at follow-up (Telch et al., 2001; Safer et al., 2010). Others show impact at post-treatment, but no follow-up (Cancian et al., 2017; Dastan et al., 2019; Safer et al., 2001; Hill et al., 2011). Instruments aimed at the assessment of affect and its regulation show inconclusive results across studies; with post-treatment and follow-up data reporting no impact on any of the measures (Telch et al., 2001), significant and small effects that are lost to follow-up (Safer et al., 2010), and effects that do not point to significant differences with CBT (Lammers et al., 2020). There are positive results for some no follow-up or pilot studies (Rahmani et al., 2018; Cancian et al., 2017; Safer et al., 2001; Hill et al., 2011; Navarro et al., 2018).

Finally, DBT highlighted improvements in weight concern, shape, eating, restraint, body image, anorexiarelated thoughts and quality of life.

#### **Discussion and Conclusion**

In the study conducted, the results are positive, but not generalisable. This conclusion has been shared by two reviews consulted in this line (Bankoff et al., 2012; Ben-Porath et al., 2020).

The most relevant limitations have been the lack of follow-up (5 studies have follow-ups and only 2 at 12 months); small sample sizes (of the 12 studies, only 3 have samples larger than 100 subjects); homogeneity of the sample, mostly caucasian women and lack of standardisation of the measures. On the other hand, the absence of specific measures of emotion regulation does not allow us to fully assess the expectation that DBT improves affect regulation. This fact may indicate that the specific skills have not had an impact beyond the common factors of the therapies or that it is the other components that have generated the positive results. Multiple studies point to diminishing improvement at follow-up, suggesting that there may be aspects of the treatment that become vulnerable over time or that some eating-related behaviour continues to sustain the problem.

Regarding future directions, further randomised controlled studies, both wait-list and comparison group, with sufficient heterogeneous sample to provide statistical power, as well as standardisation of measures for comparative purposes, are needed. Studies assessing the influence of each DBT module on recovery would be useful to delineate the strengths that the treatment can bring.

Several pilot studies have indicated promising results and should be replicated with a randomised control group, sufficient sample size and extensive follow-up. Addressing non-Caucasian populations is interesting, given the paucity of studies (Cancian et al., 2017). In Bulimia Nervosa, promising results were obtained at 6 weeks, so appetite monitoring (DBT does not specifically highlight this) is a relevant area (Hill, Craighead; Safer, 2011). Navarro et al., (2018) report favourable results in BPD and ED comorbidity.

Only one study was found that investigated moderating variables and resulted in a greater understanding of the randomised controlled trial conducted (Safer et al., 2010, Safer et al., 2012). Anorexia has hardly been investigated by DBT, although an adaptation of DBT has been developed that would be indicated for AN "Radically Open DBT".

Findings suggest that modified DBT-based treatments show a positive impact on the reduction of eating disorder symptoms and an improvement in other markers such as mood, affect and worry. DBT is conceptualised as potentially effective, particularly for Bulimia and Binge Eating Disorder, possibly for those who have encountered complications with previous treatments, who have high levels of emotional eating or comorbidity with other disorders.

# ABSTRACT

Although Cognitive Behavioural Therapy and Interpersonal Therapy have been shown to be effective in eating disorders in reducing shape or weight concerns and dietary restraint, research suggests that clients either do not fully recover or continue to experience emotional difficulties.

In order to improve the approach to these disorders, a third generation therapy, Dialectical Behavioural Therapy (DBT), has been proposed in recent years, whose main focus is the treatment of emotional dysregulation.

The aim of this paper is to carry out a literature review on the application of DBT in eating disorders. To achieve this, a narrative review of the last 20 years is carried out in order to analyse empirical studies using DBT in eating disorders. Meeting the inclusion and exclusion criteria, a total of 12 studies were identified. Since the aim was to test studies that included a control group and a comparison group with another therapy, the results obtained give an accurate picture of the empirical evidence in this field.

The vast majority of results obtained are directed towards the application of DBT in Binge Eating Disorder (8), to a lesser extent in Bulimia Nervosa (2), Bulimia Nervosa and Binge Eating Disorder (1) or Comorbidity of Eating Disorders and Borderline Personality Disorder (1). On the other hand, no studies have been conducted in anorexia nervosa that adhere to the criteria used.

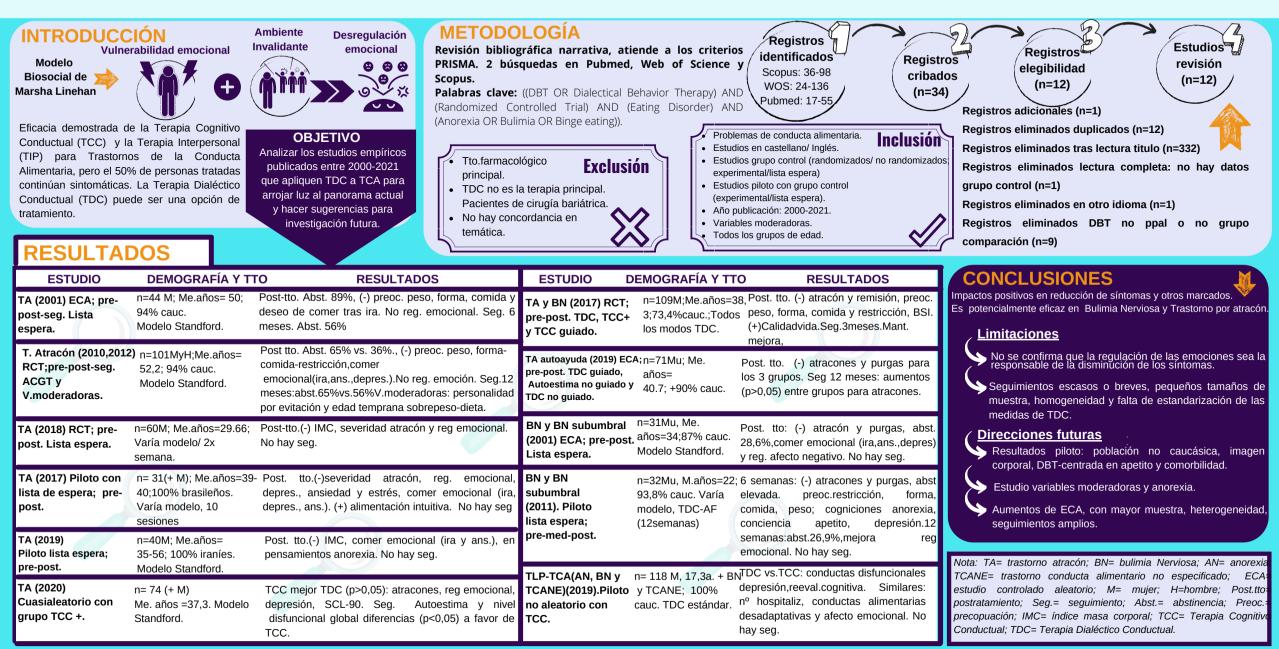
The results of this review indicate that DBT is an effective treatment for Bulimia Nervosa and Binge Eating Disorder. However, the hypothesis that improved emotional regulation is responsible for symptom reduction is not confirmed. The clinical implications derived from this literature review are that DBT may be a treatment that could benefit those with bulimia nervosa or binge eating disorder in whom treatment as usual has not been successful.

**Keywords:** dialectical behaviour therapy, randomised controlled studies, anorexia nervosa, bulimia nervosa, binge eating disorder, eating disorders.

# Terapia Dialéctico Conductual y conducta alimentaria: Revisión Narrativa

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