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Dialectical Behaviour Therapy and Acceptance and Commitment Therapy for Eating Disorders: Mood Intolerance as a Common Treatment Target
La thérapie dialectique comportementale et la thérapie de l'acceptation et de l'engagement dans le traitement des troubles de l'alimentation : les troubles de l'humeur comme cibles courantes du traitement

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ABSTRACT

Dialectical behaviour therapy (DBT) and acceptance and commitment therapy (ACT) are third-wave cognitive behavioural therapies that are beginning to show promise in the treatment of eating disorders. Mood intolerance—difficulty dealing with intense emotional states—is an important factor influencing the onset and maintenance of eating disorder pathology. Emotional regulation in DBT and experiential acceptance in ACT have similar mechanisms of change, specifically targeting mood intolerance. DBT and ACT have similar cognitive and behavioural roots and share a focus on mindfulness- and acceptance-based techniques. This theoretical review article compares mood intolerance in DBT and ACT in the treatment of eating disorders. Mood intolerance should be considered in future empirical work and incorporated into treatment of eating disorders.

RÉSUMÉ

La thérapie dialectique comportementale (TDC) et la thérapie de l'acceptation et de l'engagement (TAE) sont des thérapies comportementales de troisième vague qui commencent à donner des signes prometteurs dans le traitement des troubles de l'alimentation. Les troubles de l'humeur (difficulté à gérer des états émotifs intenses) constituent un facteur important qui influence le déclenchement et la persistance de la pathologie alimentaire. Qu'il s'agisse de la régulation des émotions dans la TDC ou de l'acceptation expérientielle dans la TAE, on observe des mécanismes similaires de changement, ciblant précisément les troubles de l'humeur. Ces deux types de thérapie (TDC et TAE) ont des racines cognitives et comportementales similaires et ont en commun de se centrer sur la pleine conscience et sur des techniques fondées sur l'acceptation. Cet article est une revue théorique qui permet de comparer les troubles de l'humeur dans le contexte de la TDC et de la TAE pour le traitement des troubles de l'alimentation. Il faudra prendre en compte les troubles de l'humeur dans les futurs travaux empiriques et les intégrer au traitement des troubles de l'alimentation.

Eating disorders have the highest mortality rate of any mental disorder and are traditionally resistant to treatment (Crow et al., 2009). Some researchers have

argued that the lack of treatment efficacy is partly due to the inadequacy of traditional psychodynamic therapy (PDT) and cognitive behaviour therapy (CBT) in addressing the unique needs of populations with eating disorders (Federici, Wisniewski, & Ben-Porath, 2012). Traditional PDT and CBT put less emphasis on targeting emotional dysregulation and skill deficits that are typically present in those with eating disorders (Zeeck, Herzog, & Hartmann, 2004), including behaviours that typically interfere with treatment such as treatment noncompliance, water-loading, and not completing homework (Federici et al., 2012). *Water-loading* is an ineffective strategy of drinking water to give the appearance of weight increase.

Furthermore, those with eating disorders who have more severe pathology and exhibit greater emotional dysregulation, interpersonal deficits, and impulsivity are less likely to respond to traditional PDT and CBT and require a more flexible, eclectic, and collaborative psychotherapeutic approach (Lenz, Taylor, Fleming, & Serman, 2014; Sansone, Fine, & Sansone, 1994). Some authors have suggested that "contextual and experiential change strategies" (Hayes, 2004, p. 659) may therefore be better suited to treat eating disorders (Federici et al., 2012). This particular contextualistic philosophy is a defining factor of acceptance- and mindfulness-based interventions (Federici et al., 2012). The aim of acceptance- and mindfulness-based interventions is to observe emotional responses without reacting to them in a maladaptive way (e.g., disordered eating) or over-identifying with the emotions (Roemer, Erisman, & Orsillo, 2008).

Researchers are beginning to explore the effectiveness and efficacy of two major acceptance- and mindfulness-based psychotherapies for treating eating disorders: dialectical behaviour therapy (DBT; Linehan, 1993) and acceptance and commitment therapy (ACT, said as a word; Hayes, Strosahl, & Wilson, 2011). The research shows promising results in the reduction of disordered eating (e.g., Bankoff, Karpel, Forbes, & Pantalone, 2012; Lenz et al., 2014). The current theoretical review article argues that DBT and ACT both target mood intolerance, which appears to be an effective and essential treatment target for individuals with eating disorders.

DBT and ACT converge on targeting *mood intolerance*, which is the inability to cope or deal with emotional states (Fairburn, Cooper, & Shafran, 2003). Mood intolerance is targeted through treatments aimed at reducing emotional dysregulation in DBT and experiential avoidance in ACT. DBT specifically aims to reduce *emotional dysregulation*, which is defined as the inability to "change or regulate emotional cues, experiences, actions, verbal responses, and/or nonverbal expressions under normative conditions" (Linehan, 2014, p. 6). ACT specifically targets *experiential avoidance*, which is the avoidance or escape of unwanted or distressing cognitions (e.g., thoughts, feelings) or experiences in order to reduce their intensity (Hayes et al., 2011).

Mood intolerance has been suggested as a key factor in the onset and maintenance of pathological eating (Baer, Fischer, & Huss, 2005; Barnes & Tantleff-Dunn, 2010; Hayaki, 2009; Merwin et al., 2010; Rawal, Park, & Williams,

2010). For example, disordered eating patterns, such as restricting, compensatory behaviours, or binge eating, are ways of coping with adverse mood states (Fairburn et al., 2003). Therefore, treatment approaches that target mood intolerance, such as DBT and ACT, theoretically align with eating disorder pathology. Given the immense role of mood intolerance in the onset and maintenance of eating disorders, it is essential for psychotherapeutic approaches to promote healthy mood tolerance (Fairburn et al., 2003). DBT and ACT share a common mechanism of change by targeting mood intolerance.

As facilitating mood tolerance is a common therapeutic mechanism of change for both DBT and ACT, the theoretical background of each, including the convergent and divergent factors of both therapies, will be explored. Empirical support for both psychotherapeutic approaches will also be outlined.

Theoretical Background of DBT and ACT

DBT and ACT are part of a new wave of cognitive and behavioural therapies (deemed the "third wave" of cognitive and behavioural therapies) that share an emphasis on mindfulness and acceptance (Hayes, 2004). Mindfulness and acceptance were comparatively emphasized very little in CBT. Third-wave cognitive therapies are those that focus on changing the function of cognition and behaviour rather than changing their content or structure (Sandoz, Wilson, & DuFrene, 2010). For example, for an individual with an eating disorder, therapy would focus on how one can increase flexibility and acceptance to live without engaging in disordered eating, even in the presence of eating preoccupation (Wilson, Bordieri, Flynn, Lucas, & Slater, 2011).

Despite similar theoretical origins, DBT and ACT differ on how they developed and how they conceptualize and incorporate acceptance and mindfulness techniques. In essence, DBT was developed top-down, through clinical experience-informed modifications of existing empirically supported treatments (Chapman, 2006). Alternatively, ACT was developed bottom-up based on research looking at emotional suffering. Steven Hayes, one of the creators of ACT, found that language and cognition have a profound effect on emotional suffering (Hayes et al., 2011).

DBT. DBT was originally created as a psychotherapy for chronic suicidality (Linehan, 1993) and was further developed to treat typically difficult-to-treat mental disorders and those who engage in self-injurious behaviours in response to extreme emotional dysregulation (Lenz et al., 2014). Individuals with eating disorders commonly display emotional dysregulation, disinhibition, difficulty maintaining positive interpersonal relationships, and poor self-image (Linehan, 2014). They also overvalue eating, body shape, and weight as a way of escaping unbearable emotions (Fairburn et al., 2003). The opposite of emotional dysregulation is emotional regulation, which is a major treatment goal in DBT (Linehan, 2014).

Overall, the goals of DBT are for individuals to (a) inhibit inappropriate behaviour related to strong emotional responses, like restrictive eating; (b) act in accordance with an external goal that is not driven by mood; (c) reduce physi-

ological arousal of intense emotions through self-soothing techniques; and (d) be situationally aware in the presence of a strong emotion. The focus of DBT is to increase conscious control and reduce automatic responses to emotionally driven experiences. The mindfulness component in DBT involves a distilled version of Eastern mindfulness practices, which both the patient and the therapist partake in. Mindfulness in DBT emphasizes experiencing and beginning to tolerate unbearable emotions (Linehan, 2014).

DBT balances these goals through a dialectical philosophy, which is characterized by a synthesis and reconciliation of opposites. The primary dialectic in DBT is creating a balance between acceptance of self and changing maladaptive processes. Marsha Linehan, the creator of DBT, found that suicidal clients reacted negatively to emphasis on behavioural and cognitive change, which would result in dropout and treatment noncompliance (Linehan, 1993). At the same time, clients perceived Rogerian-style acceptance as invalidating (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006). DBT sees the need for acceptance and the need for change as opposing forces that often arise as palpable conflicts during sessions. Finding the best synthesis of acceptance and change is an ongoing process throughout DBT.

ACT. The main goal of ACT is psychological flexibility, which is an open mind to ongoing experiences in the "present moment as fully conscious human beings" (Sandoz et al., 2010, p. 17). Psychological flexibility is necessarily behaviourally and psychologically context-dependent. For individuals with eating disorders, psychological flexibility could include being open and accepting to eating more and dealing appropriately with mood states.

An essential component of psychological flexibility is experiential acceptance. Experiential acceptance is the acceptance of experiences, including corresponding emotions and cognitions, in a nonjudgemental way without trying to change or influence them. Experiential acceptance goes a step further than just tolerating a specific mood state by actively accepting the experience without attempting to change it. Experiential acceptance is contrasted with experiential avoidance.

Experiential avoidance can manifest as actions or strategies to reduce unwanted emotions and anticipated unwanted emotions. This can involve behaviours such as distraction, suppression, or compensatory eating behaviours (Sandoz et al., 2010). Based on this theory, experiential avoidance has been suggested as the key in influencing the development and maintenance of eating disorders (Hayes et al., 2011; Manlick, Cochran, & Koon, 2013). ACT attempts to change the relationship between thoughts and feelings as experienced through disordered eating. In essence, eating pathology is addressed through mindful acceptance of disordered thoughts and feelings while fostering commitment to changing eating habits (Sandoz et al., 2010). Mindful acceptance counteracts experiential avoidance by encouraging individuals with eating disorders to experience and accept emotions that are otherwise avoided. Acceptance in ACT is taught ideographically through acceptance interventions in order to combat experiential avoidance. These techniques involve a client directly facing different ways in which experiential avoidance gets in the way of acceptance (Chapman, 2006). The role of mindfulness in

ACT is to increase psychological flexibility (Sandoz et al., 2010). ACT involves noticing inflexibility in sessions and providing in-session and/or between-session strategies to increase flexibility, including focus on experiential acceptance (Hayes et al., 2011).

mood intolerance as a common treatment target

Recently, mood intolerance has been implicated as a key factor in the onset and maintenance of disordered eating (Baer et al., 2005; Barnes & Tantleff-Dunn, 2010; Hayaki, 2009; Merwin et al., 2010; Rawal et al., 2010). The engagement in disordered eating behaviours, such as binge eating, purging, or restriction, is a way for individuals with eating disorders to dissociate from their emotions (Franko, Wonderlich, Little, & Herzog, 2004). This mood intolerance is a significant source of suffering in individuals with eating disorders and is a theoretical and conceptual aspect of both DBT and ACT. Therefore, it is possible that DBT's emotional regulation and ACT's experiential acceptance share a common mechanism of change by targeting mood intolerance. In particular, it is possible that both emotional regulation and experiential acceptance therapeutic targets serve to decrease mood intolerance in patients with eating disorders.

Extreme mood states—mostly adverse (e.g., anger, sadness), but sometimes positive (e.g., joy, happiness)—can trigger binge eating by interrupting food intake restraint (Fairburn, Cooper, & Cooper, 1986); however, the relationship between eating disorders and emotional states is more complex (Polivy & Herman, 1993; Steinberg, Tobin, & Johnson, 1990; Stice, 2002). The inability to tolerate mood is seen as a mediating factor between body dissatisfaction and bulimic symptoms, accounting for up to 71% of bulimic symptomatology variance (Stice, Ziemba, Margolis, & Flick, 1996). Mood intolerance is especially common in those with bulimia nervosa (BN) and atypical eating disorders, such as binge eating disorder (BED; Fairburn et al., 2003). Fairburn and colleagues (2003) noted that "instead of accepting changes in mood and appropriately dealing with them, these patients engage in what may be termed 'dysfunctional mood modulatory behaviour'" (p. 517). Therefore, reduced awareness of mood states and associated cognitions may result in negative behaviours, like maladaptive eating routines and compensatory eating behaviours (Claes, Vandereycken, & Vertommen, 2001; Holderness, Brooks-Gunn, & Warren, 1994; Paul, Schroeter, Dahme, & Nutzinger, 2002). These behaviours are often the result of maladaptive cognitive processes. For example, individuals with eating disorders may think they will be unable to cope with adverse moods or situations.

According to Linehan (2014), DBT theory suggests that emotional dysregulation develops from various environmental factors and a biological disposition to negative affectivity, impulsivity, and high sensitivity to emotional cues. These environmental factors include caregivers invalidating emotions or failing to model expression of emotion properly, or just a poor fit between the child's temperament and the environment in which the child grows up. DBT suggests that behavioural

patterns are established through consequences of an event and observing others' behaviour and can thus be modified by changing the antecedents and consequences of events and modelling appropriate behaviour. This is done through activities that specifically target mood intolerance, such as recognizing emotions, describing and labelling emotions, facing emotional avoidance, and learning how to deal with intense emotions (Linehan, 2014). DBT promotes emotional regulation by (a) increasing present-focused emotional awareness, (b) increasing cognitive flexibility, (c) identifying and preventing patterns of emotion intolerance, (d) increasing awareness and tolerance of emotion-related physical sensations, and (e) utilizing emotion-focused exposure procedures (Linehan, 2014).

Mood intolerance is also targeted in ACT. ACT goes a step further than merely "tolerating" mood in experiential acceptance by teaching skills aimed at accepting and embracing different emotional states (Hayes et al., 2011). Researchers have suggested that ACT is a particularly good fit for treating eating disorders due to experiential avoidance being common in this population (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). In addition to controlling outward shape, weight, and eating behaviour (Fairburn, Cooper, Doll, & Welch, 1999), individuals with eating disorders also desire to control their internal experiences, such as thoughts and feelings (Hayes et al., 2006), which results in behavioural solutions to intolerable emotions. ACT attempts to change the fixation on body and eating disorder behaviour by implementing strategies to tolerate emotions, or through experiential acceptance.

In order to facilitate experiential acceptance in ACT, a client's behaviour must be monitored in session, particularly when transitioning to topics that are unfavourable to the client. An ACT therapist might present situations where avoidance is less likely and subsequently continue to present more challenging situations to observe a shift in behaviour. Through transitioning in session, a client is able to recognize adverse responses and consciously choose either to continue implementing maladaptive solutions or to change maladaptive behaviours. ACT creates a place for a client to shift from experiential avoidance to experiential acceptance. Through this, cognitive and affective experiences are elicited in therapy. Individuals who have eating disorders may think certain experiences, emotions, cognitions, and feelings are intolerable and may avoid any eating-related activity or anything related to body image. This experiential avoidance commonly manifests as avoiding certain textures and colours, ritualized eating to limit ambivalence about food, or avoiding situations where eating might be involved (Hayes et al., 2006; Hayes et al., 2011).

Clients may refuse to acknowledge central issues (e.g., what struggles they experience with their eating disorder) or avoid genuine correction in tolerating and experiencing emotions. In DBT and ACT, a therapist will present opportunities for the client to let go of, correct, and embrace different mood states, while supporting them in these experiences. This might be done through breathing exercises, presenting a client with the opportunity to face an adverse experience, or using metaphors to relate to the clients' experiences. The therapeutic relation-

ship in DBT and ACT is emphasized and conceptualized as the context in which tolerating emotions emerges (Hayes et al., 2006; Linehan, 2014).

Another aspect of emotion-experiencing related to mood intolerance is *alexithymia*, which is the difficulty describing and identifying emotions (Bagby, Parker, & Taylor, 1994). Higher levels of alexithymia are seen in individuals with eating disorders compared to controls (Speranza et al., 2005), including rates varying between 23% and 77% for anorexia nervosa (AN) patients (Eizaguirre, de Cabezón, de Alda, Olariaga, & Juaniz, 2004) compared to rates varying from 0% to 28% in control groups (Quinton & Wagner, 2005). Alexithymia has been implicated as a contributing factor to disordered eating (Hayaki, 2009). In addition to targeting mood intolerance, both DBT and ACT target alexithymia through emotional regulation and experiential acceptance, respectively.

Mood intolerance is therefore an essential treatment target, given its importance in the onset and maintenance of eating disorder pathology. DBT and ACT target both mood intolerance and related emotional difficulties such as alexithymia through the promotion of emotional regulation and experiential acceptance, respectively. These third-wave CBT treatment approaches seem to be better able to target mood intolerance in individuals with eating disorders compared to other forms of psychotherapy that put less emphasis on mood tolerance (Zeeck et al., 2004). Therefore, the theoretical approaches of both DBT and ACT in targeting mood intolerance appear to fit with the treatment of eating disorders. The current research available appears to support this assertion and shows that DBT and ACT are promising in effectively treating eating disorders.

Evidence for DBT and ACT

DBT

Empirical research looking at DBT outcomes in the treatment of eating disorders is limited but promising (Bankoff et al., 2012). Bankoff et al. (2012) conducted a systematic review of 13 studies evaluating DBT efficacy in treating eating disorders. These 13 studies evaluated DBT programs that ran for 6 to 24 weeks. Most of these cited studies found associations between decreased disordered eating and increased emotional regulation. Bankoff and colleagues conclude that DBT appears effective in reducing disordered eating, specifically in relation to improvements in emotional regulation.

A meta-analytic review assessing the efficacy of DBT for treating individuals with an eating disorder and comorbid depression consisted of eight quantitative studies with 314 patients (Lenz et al., 2014). Four between-group studies found a mean effect size of .82 compared to waitlist or treatment as usual groups, suggesting that DBT was effective in decreasing disordered eating attitudes, increasing mood regulation, and decreasing general eating pathology (Courbasson, Nishikawa, & Dixon, 2012; Hill, Craighead, & Safer, 2011; Safer, Robinson, & Jo, 2010; Telch, Agras, & Linehan, 2001). Four single-group studies yielded a

large effect size of 1.43. These single-group studies suggested DBT is effective for changing eating attitudes and reducing eating disordered behaviour (Ben-Porath, Wisniewski, & Warren, 2009; Chen, Matthews, Allen, Kuo, & Linehan, 2008; Kröger et al., 2010; Telch, Agras, & Linehan, 2000). It is important to note that these studies only looked at women's eating pathology with comorbid depression; therefore, the extent to which these results can be generalized is limited.

Further research has also found that DBT is effective in treating eating disorders with a comorbid substance abuse disorder (Courbasson et al., 2012), borderline personality disorder (Ben-Porath et al., 2009; Safer, Telch, & Agras, 2001), and multidiagnostic eating disorder presentation (Federici & Wisniewski, 2013). Other small pilot studies show promising results in decreasing pathological eating (Safer et al., 2001; Telch et al., 2000).

Preliminary evidence suggests that DBT and DBT techniques are effective in treating populations with eating disorders (Chen & Safer, 2010; McCabe & Marcus, 2001; Safer et al., 2010; Safer et al., 2001; Telch et al., 2001). These preliminary findings suggest that DBT has promise for treating eating disorders and warrants future research. Specifically, future research should formally test emotional regulation as a mechanism of change in DBT in the treatment of eating disorders.

ACT

Preliminary research suggests that ACT is an effective treatment for individuals with a range of disordered eating pathology. ACT emphasizes intake, outcome, and process measures to determine the efficacy of ACT throughout therapy (Hayes et al., 2011).

A series of case studies have shown ACT to be effective in treating AN, subclinical AN, and BED (Berman, Boutelle, & Crow, 2009; Heffner, Sperry, Eifert, & Detweiler, 2002; Masuda, Hill, Melcher, Morgan, & Twohig, 2014). In a small pilot study with three adult women, Berman and colleagues (2009) showed significant improvements for those with AN and subclinical AN immediately following ACT treatment and at a one-year follow-up. Two of these participants gained modest but significant amount of weight. All three participants displayed substantial increases in acceptance of body-image-related thoughts. Heffner et al. (2002) demonstrated that increased acceptance of body-image-related thoughts led to less anorexic behaviour, like restrictive eating. In BED, increases in psychological flexibility and acceptance mediated reductions in binge eating (Lillis, Hayes, Bunting, & Masuda, 2009).

Juarascio et al. (2013) found that ACT successfully decreased eating pathology and lowered rates of hospitalization compared to a treatment as usual group, which involved undergoing an eclectic intensive program in a residential setting, at a six-month follow-up. Additionally, Juarascio, Forman, and Herbert (2010) found that ACT produced large decreases of eating pathology (d = 1.89) while CBT produced modest decreases (d = 0.48) in a university population with eating disorders. The authors suggest that accepting distressing thoughts may be a particularly useful mechanism of change for individuals with disordered eating

patterns. This acceptance allows for the psychological flexibility to be aware of intense emotions without engaging in disordered eating patterns as a coping strategy. However, this study also included subclinical individuals with problematic eating patterns, making it difficult to generalize to those with a diagnosable eating disorder.

Furthermore, components of ACT have been empirically and theoretically associated with the onset and maintenance of disordered eating. Specifically, psychological flexibility and acceptance—two key components of ACT—have been associated with reduced disordered eating pathology (Deming & Lynn, 2010; Masuda, Feinstein, Wendell, & Sheehan, 2010), and researchers have noted a conceptual fit with the theoretical framework of ACT and eating disorder pathology (e.g., Berman et al., 2009; Heffner et al., 2002).

Research supporting the efficacy of ACT in treating eating disorders is preliminary but promising; however, further research is needed to determine outcomes of treatment and evaluate the mechanisms of change in ACT. Particularly important would be to determine how disordered eating is impacted by treatments specifically targeting mood intolerance.

SUMMARY AND CONCLUSION

This theoretical review article examined and compared how two therapeutic approaches—DBT and ACT—target mood intolerance in the treatment of eating disorders. These two treatment orientations are part of a third wave of cognitive and behavioural approaches that focus on mindfulness and acceptance. DBT and ACT conceptualize mood intolerance as a fundamental aspect of the etiology and symptomatology of eating disorders. Specifically, this article argues that both therapies teach individuals with eating disorders to tolerate their mood and to combat mood intolerance through emotional regulation (in DBT) and experiential acceptance (in ACT).

Although research looking at therapeutic outcomes is sparse for both DBT and ACT, preliminary findings suggest that both therapies have promise for treating individuals with eating disorders. However, critics of third-wave cognitive and behaviour therapies suggest that therapists are "getting ahead of the data." Despite the promising results, more outcome research is needed for either approach to be considered an empirically supported treatment, according to American Psychological Association standards (APA Presidential Task Force on Evidence-Based Practice, 2006). Further research should also compare the effectiveness of different therapeutic approaches (e.g., comparing DBT and ACT) in treating eating disorders.

Overall, eating disorders have historically been difficult to treat; however, newer therapies are beginning to show promise in treating eating disorders. Researchers have suggested empirical and theoretical compatibility with the therapeutic targets of DBT and ACT and key factors that influence the onset and maintenance of eating pathology. Burgeoning research shows that acceptance- and mindfulness-based therapies have potential for effectively treating eating disorders.

References

APA Presidential Task Force on Evidence-Based Practice. (2006). Evidence-based practice in psychology. *American Psychologist, 61,* 271–285. Retrieved from http://www.apa.org/pubs/journals/features/evidence-based-statement.pdf

Baer, R. A., Fischer, S., & Huss, D. B. (2005). Mindfulness and acceptance in the treatment of disordered eating. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *23*, 281–300. https://doi.org/10.1007/s10942-005-0015-9

Bagby, R. M., Parker, J. D., & Taylor, G. J. (1994). The twenty-item Toronto Alexithymia Scale—I. Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research*, *38*, 23–32. https://doi.org/10.1016/0022-3999(94)90005-1

Bankoff, S. M., Karpel, M. G., Forbes, H. E., & Pantalone, D. W. (2012). A systematic review of dialectical behavior therapy for the treatment of eating disorders. *Eating Disorders*, *20*, 196–215. https://doi.org/10.1080/10640266.2012.668478

Barnes, R. D., & Tantleff-Dunn, S. (2010). Food for thought: Examining the relationship between food thought suppression and weight-related outcomes. *Eating Behaviors*, *11*, 175–179. https://doi.org/10.1016/j.eatbeh.2010.03.001

Ben-Porath, D., Wisniewski, L., & Warren, M. (2009). Differential treatment response for eating disordered patients with and without a comorbid borderline personality diagnosis using a DBT-informed approach. *Eating Disorders, 17,* 225–241. https://doi.org/10.1080/10640260902848576

Berman, M. I., Boutelle, K. N., & Crow, S. J. (2009). A case series investigating acceptance and commitment therapy as a treatment for previously treated, unremitted patients with anorexia nervosa. *European Eating Disorders Review*, *17*, 426–434. https://doi.org/10.1002/erv.962

Chapman, A. L. (2006). Acceptance and mindfulness in behavior therapy: A comparison of dialectical behavior therapy and acceptance and commitment therapy. *International Journal of Behavioral Consultation and Therapy, 2*, 308–313. https://doi.org/10.1037/h0100785

Chen, E. Y., Matthews, L., Allen, C., Kuo, J., & Linehan, M. (2008). Dialectical behavior therapy for clients with binge eating disorder or bulimia nervosa and borderline personality disorder. *International Journal of Eating Disorders, 41,* 505–512. https://doi.org/10.1002/eat.20522

Chen, E. Y., & Safer, D. (2010). Dialectical behavior therapy for bulimia nervosa and binge-eating disorder. In C. M. Grilo & J. E. Mitchell (Eds.), *Treatment of eating disorders: A clinical handbook* (pp. 294–316). New York, NY: Guilford Press.

Claes, L., Vandereycken, W., & Vertommen, H. (2001). Self-injurious behaviors in eating-disordered patients. *Eating Behaviors*, *2*, 263–272. https://doi.org/10.1016/S1471-0153(01)00033-2

Courbasson, C., Nishikawa, Y., & Dixon, L. (2012). Outcome of dialectical behaviour therapy for concurrent eating and substance use disorders. *Clinical Psychology & Psychotherapy*, *19*, 434–449. https://doi.org/10.1002/cpp.748

Crow, S. J., Peterson, C. B., Swanson, S. A., Raymond, N. C., Specker, S., Eckert, E. D., & Mitchell, J. E. (2009). Increased mortality in bulimia nervosa and other eating disorders. *American Journal of Psychiatry, 166*, 1342–1346. https://doi.org/10.1176/appi.ajp.2009.09020247

Deming, A., & Lynn, S. J. (2010). Bulimic and depressive symptoms: Self-discrepancies and acceptance. *Imagination, Cognition and Personality*, *30*, 93–109. https://doi.org/10.2190/IC.30.1.f

Eizaguirre, A. E., de Cabezón, A. O. S., de Alda, I. O., Olariaga, L. J., & Juaniz, M. (2004). Alexithymia and its relationships with anxiety and depression in eating disorders. *Personality and Individual Differences*, *36*, 321–331. https://doi.org/10.1016/S0191-8869(03)00099-0

Fairburn, C. G., Cooper, Z., & Cooper, P. J. (1986). The clinical features and maintenance of bulimia nervosa. *Handbook of eating disorders: Physiology, psychology and treatment of obesity, anorexia and bulimia* (pp. 389–404). New York, NY: Basic Books.

Fairburn, C. G., Cooper, Z., Doll, H. A., & Welch, S. L. (1999). Risk factors for anorexia nervosa: Three integrated case-control comparisons. *Archives of General Psychiatry*, *56*, 468–476. https://doi.org/10.1001/archpsyc.56.5.468

Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: A "transdiagnostic" theory and treatment. *Behaviour Research and Therapy*, *41*, 509–528. https://doi.org/10.1016/S0005-7967(02)00088-8

Federici, A., & Wisniewski, L. (2013). An intensive DBT program for patients with multidiagnostic eating disorder presentations: A case series analysis. *International Journal of Eating Disorders*, *46*, 322–331. https://doi.org/10.1002/eat.22112

Federici, A., Wisniewski, L., & Ben-Porath, D. (2012). Description of an intensive dialectical behavior therapy program for multidiagnostic clients with eating disorders. *Journal of Counseling and Development, 90*, 330–338. https://doi.org/10.1002/j.1556-6676.2012.00041.x

Franko, D. L., Wonderlich, S. A., Little, D., & Herzog, D. B. (2004). Diagnosis and classification of eating disorders. *Handbook of eating disorders and obesity* (pp. 58–80). Hoboken, NJ: John Wiley and Sons.

Hayaki, J. (2009). Negative reinforcement eating expectancies, emotion dysregulation, and symptoms of bulimia nervosa. *International Journal of Eating Disorders*, *42*, 552–556. https://doi.org/10.1002/eat.20646

Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy*, *35*, 639–665. https://doi.org/10.1016/S0005-7894(04)80013-3

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behavior Research and Therapy, 44,* 1–25. https://doi.org/10.1016/j.brat.2005.06.006

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2011). *Acceptance and commitment therapy*. New York, NY: Guilford Press.

Heffner, M., Sperry, J., Eifert, G. H., & Detweiler, M. (2002). Acceptance and commitment therapy in the treatment of an adolescent female with anorexia nervosa: A case example. *Cognitive and Behavioral Practice*, *9*, 232–236. https://doi.org/10.1016/S1077-7229(02)80053-0

Hill, D., Craighead, L., & Safer, D. (2011). Appetite-focused DBT for the treatment of binge eating with purging: A preliminary trial. *International Journal of Eating Disorders, 44*, 249–261. https://doi.org/10.1002/eat.20812

Holderness, C. C., Brooks-Gunn, J., & Warren, M. P. (1994). Co-morbidity of eating disorders and substance abuse review of the literature. *International Journal of Eating Disorders*, *16*, 1–34. https://doi.org/10.1002/1098-108X(199407)

Juarascio, A. S., Forman, E. M., & Herbert, J. D. (2010). Acceptance and commitment therapy versus cognitive therapy for the treatment of comorbid eating pathology. *Behavior Modification*, *34*, 175–190. https://doi.org/10.1177/0145445510363472

Juarascio, A., Shaw, J., Forman, E., Timko, C. A., Herbert, J., Butryn, M., … Lowe, M. (2013). Acceptance and commitment therapy as a novel treatment for eating disorders: An initial test of efficacy and mediation. *Behavior Modification, 37*, 459–489. https://doi.org/10.1177/0145445513478633

Kröger, C., Schweiger, U., Sipos, V., Kliem, S., Arnold, R., Schunert, T., & Reinecker, H. (2010). DBT and an added cognitive behavioral treatment module for ED in women with BPD and AN or BN who failed to respond to previous treatments. *Journal of Behavior Therapy and Experimental Psychiatry, 41*, 381–388. https://doi.org/10.1016/j.jbtep.2010.04.001

Lenz, A. S., Taylor, R., Fleming, M., & Serman, N. (2014). Effectiveness of dialectical behavior therapy for treating eating disorders. *Journal of Counseling & Development*, *92*, 26–35. https://doi.org/10.1002/j.1556-6676.2014.00127.x

Lillis, J., Hayes, S. C., Bunting, K., & Masuda, A. (2009). Teaching acceptance and mindfulness to improve the lives of the obese: A preliminary test of a theoretical model. *Annals of Behavioral Medicine*, *37*, 58–69. https://doi.org/10.1007/s12160-009-9083-x

Linehan, M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York, NY: Guilford Press.

Linehan, M. (2014). *DBT skills training manual*. New York, NY: Guilford Press.

Lynch, T. R., Chapman, A. L., Rosenthal, M. Z., Kuo, J. R., & Linehan, M. (2006). Mechanisms of change in dialectical behavior therapy: Theoretical and empirical observations. *Journal of Clinical Psychology, 62*, 459–480. https://doi.org/10.1002/jclp.20243

Manlick, C. F., Cochran, S. V., & Koon, J. (2013). Acceptance and commitment therapy for eating disorders: Rationale and literature review. *Journal of Contemporary Psychotherapy*, *43*, 115–122. https://doi.org/10.1007/s10879-012-9223-7

Masuda, A., Feinstein, A. B., Wendell, J. W., & Sheehan, S. T. (2010). Cognitive defusion versus thought distraction: A clinical rationale, training, and experiential exercise in altering psychological impacts of negative self-referential thoughts. *Behavior Modification, 34*, 520–538. https://doi.org/10.1177/0145445510379632

Masuda, A., Hill, M. L., Melcher, H., Morgan, J., & Twohig, M. P. (2014). Acceptance and commitment therapy for women diagnosed with binge eating disorder: A case-series study. *Cognitive and Behavioral Practice, 22*, 1–13. https://doi.org/10.1016/j.cbpra.2014.02.005

McCabe, E. B., & Marcus, M. D. (2001). Is dialectical behavior therapy useful in the management of anorexia nervosa? *Eating Disorders*, *10*, 335–337. https://doi.org/10.1080/10640260214499

Merwin, R. M., Timko, C. A., Moskovich, A. A., Ingle, K. K., Bulik, C. M., & Zucker, N. L. (2010). Psychological inflexibility and symptom expression in anorexia nervosa. *Eating Disorders*, *19*, 62–82. https://doi.org/10.1080/10640266.2011.533606

Paul, T., Schroeter, K., Dahme, B., & Nutzinger, D. O. (2002). Self-injurious behavior in women with eating disorders. *American Journal of Psychiatry*, *159*, 408–411. https://doi.org/10.1176/appi.ajp.159.3.408

Polivy, J., & Herman, C. P. (1993). Etiology of binge eating: Psychological mechanisms. In C. G. Fairburn & G. T. Wilson (Eds.), *Binge eating: Nature, assessment, and treatment* (pp. 173–205). New York, NY: Guilford Press.

Quinton, S., & Wagner, H. L. (2005). Alexithymia, ambivalence over emotional expression, and eating attitudes. *Personality and Individual Differences*, *38*, 1163–1173. https://doi.org/10.1016/j.paid.2004.07.013

Rawal, A., Park, R. J., & Williams, J. M. G. (2010). Rumination, experiential avoidance, and dysfunctional thinking in eating disorders. *Behaviour Research and Therapy*, *48*, 851–859. https://doi.org/10.1016/j.brat.2010.05.009

Roemer, L., Erisman, S. M., & Orsillo, S. M. (2008). Mindfulness and acceptance-based treatments for anxiety disorders. In M. M. Antony & M. B. Stein (Eds.), *Oxford handbook of anxiety and related disorders* (pp. 476–487). Oxford, UK: Oxford University Press.

Safer, D., Robinson, A., & Jo, B. (2010). Outcome from a randomized controlled trial of group therapy for BED: Comparing DBT adapted for binge eating to an active comparison group therapy. *Behavior Therapy, 41*, 106–120. https://doi.org/10.1016/j.beth.2009.01.006

Safer, D., Telch, C. F., & Agras, W. S. (2001). Dialectical behavior therapy for bulimia nervosa. *American Journal of Psychiatry*, *158*, 632–634. https://doi.org/10.1176/appi.ajp.158.4.632

Sandoz, E. K., Wilson, K. G., & DuFrene, T. (2010). *Acceptance and commitment therapy for eating disorders*. Oakland, CA: New Harbinger.

Sansone, R. A., Fine, M. A., & Sansone, L. A. (1994). An integrated psychotherapy approach to the management of self-destructive behavior in eating disorder patients with borderline personality disorder. *Eating Disorders*, *2*, 251–260. https://doi.org/10.1080/10640269408249120

Speranza, M., Corcos, M., Loas, G., Stéphan, P., Guilbaud, O., Perez-Diaz, F., … & Jeammet, P. (2005). Depressive personality dimensions and alexithymia in eating disorders. *Psychiatry Research*, *135*, 153–163. https://doi.org/10.1016/j.psychres.2005.04.001

Steinberg, S., Tobin, D., & Johnson, C. (1990). The role of bulimic behaviors in affect regulation: Different functions for different patient subgroups? *International Journal of Eating Disorders*, *9*, 51–55. https://doi.org/10.1002/1098-108X(199001)

Stice, E. (2002). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin*, *128*, 825–848. https://doi.org/10.1037/0033-2909.128.5.825

Stice, E., Ziemba, C., Margolis, J., & Flick, P. (1996). The dual pathway model differentiates bulimics, subclinical bulimics, and controls: Testing the continuity hypothesis. *Behavior Therapy*, *27*, 531–549. https://doi.org/10.1016/S0005-7894(96)80042-6

Telch, C. F., Agras, W. S., & Linehan, M. (2000). Group dialectical behavior therapy for binge-eating disorder: A preliminary, uncontrolled trial. *Behavior Therapy*, *31*, 569–582. https://doi.org/10.1016/S0005-7894(00)80031-3

Telch, C. F., Agras, W. S., & Linehan, M. (2001). Dialectical behavior therapy for binge eating disorder. *Journal of Consulting and Clinical Psychology, 69*, 1051–1065. https://doi.org/10.1037/0022-006X.69.6.1061

Wilson, K. G., Bordieri, M., Flynn, M. K., Lucas, N., & Slater, R. (2011). Understanding acceptance and commitment therapy in context: A history of similarities and differences with other cognitive behavior therapies. In J. Herbert & E. Forman (Eds.), *Acceptance and mindfulness in cognitive behavior therapy* (pp. 233–262). Hoboken, NJ: John Wiley and Sons.

Zeeck, A., Herzog, T., & Hartmann, A. (2004). Day clinic or inpatient care for severe bulimia nervosa? *European Eating Disorders Review*, *12*, 79–86. https://doi.org/10.1002/erv.535

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