National Eating Disorder Information Centre

BULLETIN

Vol. 34 No. 5 • ISSN 08366845 • December 2019

The Development and Maintenance of Binge Eating from an Integrative Cognitive and Behavioural Perspective

Amy Burton, DClinPsy / PhD, Clinical Psychologist • The University of Sydney (Sydney, AUS)
Maree Abbott, MClinPsy, PhD, Associate Professor • The University of Sydney (Sydney, AUS)

INTRODUCTION

Binge eating is a core symptom of eating disorder presentations including binge eating disorder (BED), bulimia nervosa (BN), anorexia nervosa – binge/purge type (AN-BP), and a common feature of otherwise specified eating disorders (OSFED) (American Psychiatric Association, 2013). Binge eating episodes involve the consumption of a large amount of food in a discrete time period, and the behaviour is characterized by a sense of loss of control over one's eating and the experience of emotional distress (American Psychiatric Association, 2013). Research indicates that the prevalence of binge eating among the general community is between 7.2% to 13% and that it has increased over time (Hay, Mond, Buttner, & Darby, 2008; Mitchison, Touyz, González-Chica, Stocks, & Hay, 2017). Binge eating has been found to be associated with a number of serious psychological and physical health conditions including depression, anxiety, self-harm, substance dependence, and personality disorders (Becker & Grilo, 2015; Picot & Lilenfeld, 2003; Telch & Stice, 1998; Wilfley et al., 2000), as well as chronic physical health conditions including hypertension, diabetes, metabolic syndrome, and chronic pain (Kessler et al., 2013; Olguin et al., 2016). Furthermore, binge eating is associated with impaired quality of life and poor social functioning (Mitchison, Hay, Slewa-Younan, & Mond, 2012; Wilfley, Wilson, & Agras, 2003).

There remains uncertainty in the literature regarding the key features that maintain binge eating behaviour, including whether there are substantial differences between key features, such as cognitions, for subthreshold and diagnostic levels of binge eating, as well as how these key features differ between diagnostic groups (Cooper, 2005). Given the prevalence of binge eating both in community and clinical populations, a sound understanding of the underlying mechanisms that maintain binge eating behaviour is crucial for developing effective models and treatments. A number of cognitive and behavioural models of binge eating have been proposed (see Burton & Abbott, 2017 for a comprehensive summary of the existing models). Many of these models overlap in hypothesized constructs; Burton and Abbott (2017) identified a number of features common among the leading psychological models of binge eating. Multiple theories and models (e.g., cognitive-behavioural model of

“Given the prevalence of binge eating both in community and clinical populations, a sound understanding of the underlying mechanisms that maintain binge eating behaviour is crucial for developing effective models and treatments.”

Funded by Mental Health Programs and Services, Ontario Ministry of Health and Long-Term Care. A Program of the University Health Network. The opinions expressed in the Bulletin do not necessarily reflect those of the above organizations.

BN and transdiagnostic eating disorders, dietary restraint theory, emotional regulation theory, schema model, dual pathway model, and the cognitive model of BN; Burton & Abbott, 2017) have hypothesized that the factors of dietary restraint, negative affect, poor emotional regulation skills, low self-esteem, and the presence of thoughts/beliefs about food and eating play an important role in the development and maintenance of binge eating.

PREDISPOSING FACTORS

Core Low Self-Esteem

This factor involves the negative beliefs about the self and poor sense of self-worth experienced by those who engage in binge eating. The core low self-esteem is experienced as negative or critical thoughts about oneself and may even present as self-hatred or self-loathing; these are also known as maladaptive schemas. In individuals with eating disorders, poor self-esteem may also present as unhelpful assumptions that equate their worth/value with their body shape or weight. The presence of core low self-esteem appears to be a predisposing or vulnerability factor for the development of binge eating.

MEASUREMENT: Rosenberg Self-Esteem Scale (RSES), Eating Disorders Core Beliefs Questionnaire (ED-CBQ).

> Burton & Abbott have hypothesized that the factors of dietary restraint, negative affect, poor emotional regulation skills, low self-esteem, and the presence of thoughts/beliefs about food and eating play an important role in the development and maintenance of binge eating.

Negative Affective States

This factor involves the experience of negative affect, which encapsulates low mood/depression, anxiety, and stress, and other forms of psychological distress. When combined with a difficulty with emotional regulation, this is a predisposing or vulnerability factor for binge eating.

MEASUREMENT: Mood rating scale, Depression Anxiety Stress Scale (DASS-21), Kessler 10 Psychological Distress Scale (K10).

Difficulty with Emotional Regulation

This factor involves intolerance of unpleasant emotions and difficulty with regulating one's emotions when experiencing distress. Difficulty with emotional regulation – also known as affect control – manifests as maladaptive beliefs about one's abilities to cope with emotions and about the consequences of experiencing negative affect. This is a predisposing feature, and can lead to dietary restraint and binge eating as unhelpful coping strategies to alleviate the experience of negative affect.

MEASUREMENT: Difficulty with Emotional Regulation Scale (DERS), Distress Tolerance Scale (DTS), or Affect Control Scale (ACS).

BEHAVIOURAL TRIGGERING/ MAINTAINING FACTOR

Dietary Restraint

This factor involves behavioural processes to reduce caloric intake (e.g., choosing low-calorie foods, counting calories), to restrict eating of specific food groups (e.g. cutting out carbohydrates, fats, sugars, or meat from one's diet), or to restrict the times during which one eats (e.g., intermittent fasting). This is usually practiced as a way to control body shape and weight, but can also effective for some individuals in temporarily reducing the experience of negative affect.

MEASUREMENT: Food diaries, Eating Disorders Examination Questionnaire (EDE-Q).

COGNITIVE TRIGGERING/MAINTAINING FACTOR

Beliefs about Eating

This factor involves the cognitive and metacognitive processes of experiencing beliefs about eating and binge eating. Beliefs about eating may be categorized as: (1) Positive – related to the role of eating in self-soothing, e.g., "eating makes me feel better"; (2) Negative – related to the negative consequences of eating, e.g., "I'll get fat if I eat"; (3) Permissive or 'no-control' – allow the individual to engage in the binge episode, e.g., "it's okay to eat when I feel stressed, or focus on a lack or loss of control, e.g., "I can't control my eating". These beliefs have been found to trigger and maintain binge eating.

MEASUREMENT: Eating Beliefs Questionnaire (EBQ-18), Eating Disorders Thought Questionnaire.

BEHAVIOURAL OUTCOME: BINGE EATING

Model

In a recent paper, we presented a new model for understanding transdiagnostic binge eating (see Figure 1; Burton & Abbott, 2019). This model aims to build upon the existing literature, including variables identified in previous research as being important predictors or maintenance factors for binge eating. It integrates the variables of core low self-esteem, difficulty with emotional regulation, negative affect, dietary restraint, eating beliefs, and the outcome of binge eating. The result of our analysis was the identification of a number of interesting relationships between these factors. Firstly, we found that eating beliefs and dietary restraint are both important predictors of binge eating, but that they are not related to each other, and so must act independently. This led to the resultant model including a 'dual-pathway', with one pathway to binge eating mediated by dietary restraint and therefore more closely resembling the theoretical models proposed by Fairburn and colleagues (e.g., the cognitive-behavioural model of BN (Fairburn, 1981) and the transdiagnostic model of eating disorders (Fairburn, Cooper, & Shafran, 2003)), and the other mediated by eating beliefs, and more closely resembling Cooper, Wells, and Todd's cognitive model of BN (2004). Furthermore, the outcomes of this model serve to emphasize the role of core low self-esteem; in the resultant model, the triggering of core low self-esteem could lead to binge eating via a number of direct and indirect pathways.

Therefore, according to the model, individuals who have negative core beliefs about the self, or *core low self-esteem*, are predisposed to engage in binge eating. When the core beliefs are triggered, *negative affect* (low mood, anxiety, and/or stress) is experienced. Individuals who experience *difficulty with emotional regulation* have poor tolerance of such negative affect and feel compelled to find a way to neutralize the emotion. This discomfort with the negative affect is addressed by engaging in *dietary restraint* (which serves to distract from or control the emotion) and/or the elicitation of *eating beliefs*, which may be positive ("eating helps to control my emotions"), negative ("I can't control my eating because I'm weak"), or permissive ("I deserve to have a pleasure like binge eating"). Binge eating is triggered by engagement in dietary restraint or by the activation of beliefs about binge eating, reflecting what is known as a 'dual pathway' to this behaviour.

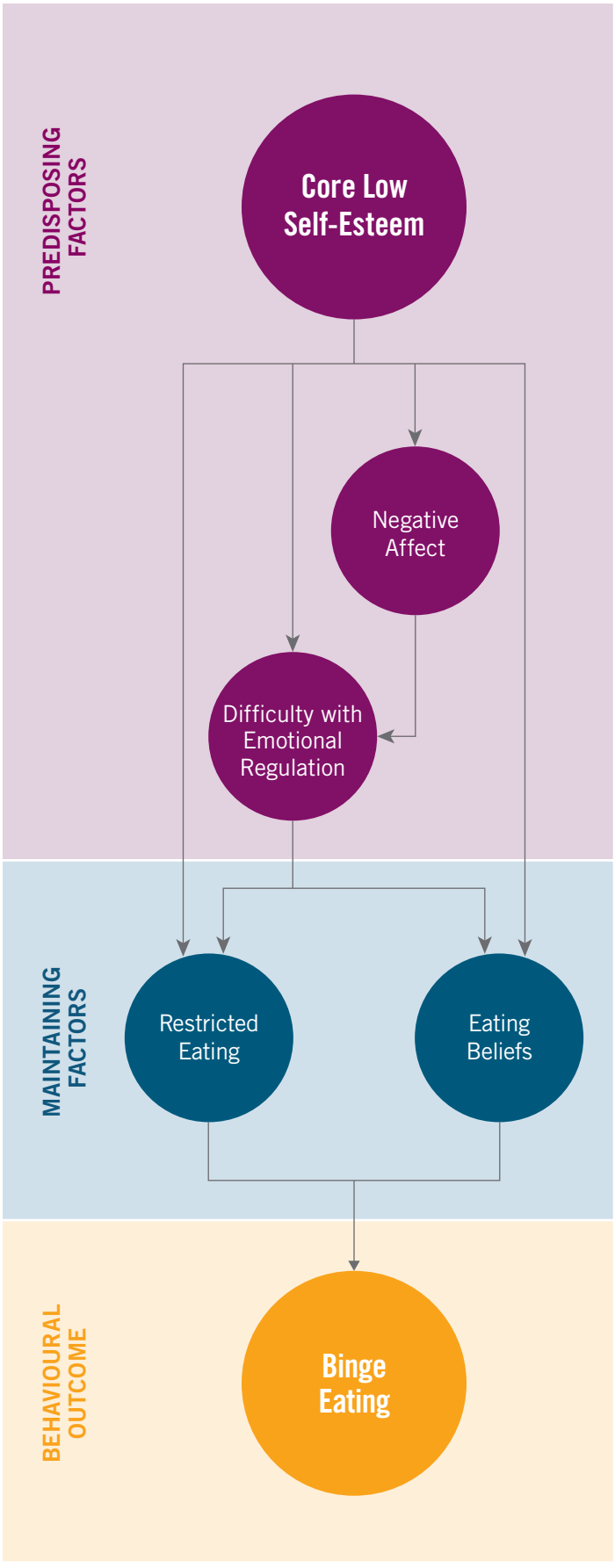


FIGURE 1

It is possible that this 'dual pathway' indicates the existence two separate types of binge eating. The first, mediated by dietary restraint, more closely resembles the pathways to binge eating hypothesized in the transdiagnostic model (Fairburn, Cooper, & Shafran, 2003). This first pathway could represent the type of binge eating that is more strongly maintained by a sense of loss of control and may be more commonly observed in people with restrictive eating disorders such as AN-BP and certain cases of BN. The second, mediated by eating beliefs, more closely resembles the pathway to binge eating proposed in the cognitive model of BN (Cooper et al., 2004). This second type of binge eating could represent the type of binge eating that is more strongly maintained by its function to comfort and self-soothe, and may be more commonly observed in people who do not restrict their eating such as BED, certain cases of BN, and sub-clinical binge eating.

TREATMENT APPROACHES TO TARGET THESE FACTORS

This model provides a framework for understanding the causal and maintenance factors leading to the development and perpetuation of binge eating and highlights several areas for intervention. Based on this model, treatments that target the core low self-esteem and improve emotional regulation skills are likely to lead to reductions in binge eating. Then, depending on whether the individual's binge eating is usually triggered by dietary restraint or by the activation of eating beliefs, or if their binge eating can be triggered by either of these factors, treatment approaches can be personalized to focus more on addressing the dietary restraint, more on addressing unhelpful beliefs about eating, or both.

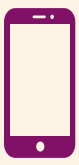
A recommended treatment approach would draw from elements from the existing evidence-based modalities of CBT (CBT-BN/CBT-BED (Fairburn, Wilson, & Schleimer, 1993); CBT-E: (Fairburn et al., 2003)), DBT (Telch, Agras, & Linehan, 2001), schema therapy (McIntosh et al., 2016), and metacognitive and cognitive therapy (Cooper, Todd, & Wells, 2008). A targeted cognitive-behavioural approach to address the causal and maintenance factors identified in this model might incorporate the following four modules:

1. Enhancing distress tolerance and supporting the development of healthy coping skills
2. Promoting regular and healthy eating and reducing/eliminating dietary restraint and/or
3. Challenging metacognitive beliefs about eating such as negative, positive and permissive beliefs about eating
4. Improving self-esteem by challenging negative core beliefs or schemas

This model may inform the identification of the specific causal and maintenance factors leading to binge eating for individual clients and help clinicians develop straightforward treatment programs tailored to actively target the underlying cognitive and behavioural processes that have been maintaining the binge eating behaviour.

Binge eating is a distressing symptom experienced transdiagnostically across eating disorder presentations and it is a behaviour that has been found to be responsive to psychological interventions. We hope that this model for conceptualizing binge eating will assist clinicians in their treatment planning, allowing for a targeted approach individualized for the specific maintaining cycles for their particular client.

> Based on this model, treatments that target the core low self-esteem and improve emotional regulation skills are likely to lead to reductions in binge eating.



NEDIC Helpline (416) 340-4156 or Toll-Free 1-866-NEDIC-20
Monday to Thursday 9am–9pm and Friday 9am–5pm EST

Through our programming, campaigns, and national toll-free helpline, NEDIC is committed to prevention, building awareness and ensuring that people no longer suffer in silence.

The **Bulletin** is published five times per year by NEDIC.

(416) 340-4156 or Toll Free: 1-866-NEDIC20
nedic@uhn.ca

Subscribe: http://www.nedic.ca/store/

REFERENCES

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)* Washington, DC.

Becker, D. F., & Grilo, C. M. (2015). Comorbidity of mood and substance use disorders in patients with binge-eating disorder: associations with personality disorder and eating disorder pathology. *Journal of Psychosomatic Research, 79*(2), 159–164.

Burton, A. L., & Abbott, M. J. (2017). Conceptualising binge eating: a review of the theoretical and empirical literature. *Behaviour Change, 34*(3), 168–198.

Burton, A. L., & Abbott, M. J. (2019). Processes and pathways to binge eating: development of an integrated cognitive and behavioural model of binge eating. *Journal of Eating Disorders, 7*(1), 18.

Cooper, M., Todd, G., & Wells, A. (2008). *Treating bulimia nervosa and binge eating: An integrated metacognitive and cognitive therapy manual.* Routledge.

Cooper, M. J., Wells, A., & Todd, G. (2004). A cognitive model of bulimia nervosa. *British Journal of Clinical Psychology, 43*(1), 1–16.

Cooper, M. J. (2005). Cognitive theory in anorexia nervosa and bulimia nervosa: Progress, development and future directions. *Clinical Psychology Review, 25*(4), 511–531.

Fairburn, C. (1981) A cognitive behavioural approach to the treatment of bulimia. *Psychological Medicine*, 11, 707–711

Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: A "transdiagnostic" theory and treatment. *Behaviour Research and Therapy, 41*(5), 509-528.

Fairburn, C. G., Wilson, G. T., & Schleimer, K. (1993). *Binge eating: Nature, assessment, and treatment* (pp. 317–360). New York: Guilford Press.

Hay, P. J., Mond, J., Buttner, P., & Darby, A. (2008). Eating disorder behaviors are increasing: findings from two sequential community surveys in South Australia. *PLoS ONE, 3*(2), e1541.

Kessler, R. C., Berglund, P. A., Chiu, W. T., Deitz, A. C., Hudson, J. I., Shahly, V., ... Benjet, C. (2013). The prevalence and correlates of binge eating disorder in the World Health Organization World Mental Health Surveys. *Biological Psychiatry, 73*(9), 904–914.

McIntosh, V. V., Jordan, J., Carter, J. D., Frampton, C. M., McKenzie, J. M., Latner, J. D., & Joyce, P. R. (2016). Psychotherapy for transdiagnostic binge eating: A randomized controlled trial of cognitive-behavioural therapy, appetite-focused cognitive-behavioural therapy, and schema therapy. *Psychiatry Research*, 240, 412–420.

Mitchison, D., Hay, P., Slewa-Younan, S., & Mond, J. (2012). Time trends in population prevalence of eating disorder behaviors and their relationship to quality of life. *PloS ONE, 7*(11), e48450.

Mitchison, D., Touyz, S., González-Chica, D., Stocks, N., & Hay, P. (2017). How abnormal is binge eating? 18-Year time trends in population prevalence and burden. *Acta Psychiatrica Scandinavica*.

Olguin, P., Fuentes, M., Gabler, G., Guerdjikova, A. I., Keck, P. E., & McElroy, S. L. (2016). Medical comorbidity of binge eating disorder. *Eating and Weight Disorders – Studies on Anorexia, Bulimia and Obesity*, 1–14.

Picot, A. K., & Lilenfeld, L. R. (2003). The relationship among binge severity, personality psychopathology, and body mass index. *International Journal of Eating Disorders, 34*(1), 98–107.

Telch, C. F., Agras, W. S., & Linehan, M. M. (2001). Dialectical behavior therapy for binge eating disorder. *Journal of Consulting and Clinical Psychology, 69*(6), 1061.

Telch, C. F., & Stice, E. (1998). Psychiatric comorbidity in women with binge eating disorder: prevalence rates from a non-treatment-seeking sample. *Journal of Consulting and Clinical Psychology, 66*(5), 768.

Wilfley, D. E., Friedman, M. A., Dounchis, J. Z., Stein, R. I., Welch, R. R., & Ball, S. A. (2000). Comorbid psychopathology in binge eating disorder: Relation to eating disorder severity at baseline and following treatment. *Journal of Consulting and Clinical Psychology, 68*(4), 641.

Wilfley, D. E., Wilson, G. T., & Agras, W. S. (2003). The clinical significance of binge eating disorder. *International Journal of Eating Disorders 34*(S1), S96–S106.