



Review

Emotion regulation model in binge eating disorder and obesity - a systematic review



Elisabeth J. Leehr^{a,*}, Kerstin Krohmer^b, Kathrin Schag^a, Thomas Dresler^{c,d},
Stephan Zipfel^a, Katrin E. Giel^{a,e}

^a Department of Psychosomatic Medicine and Psychotherapy, University Hospital Tuebingen, Internal Medicine VI, Osianderstraße 5, 72076 Tuebingen, Germany

^b Department of Clinical Psychology and Psychotherapy, University Tuebingen, Schleichstraße 4, 72076 Tuebingen, Germany

^c Department of Psychiatry and Psychotherapy, University of Tuebingen, Calwerstraße 14, 72076 Tuebingen, Germany

^d LEAD Graduate School, University of Tuebingen, Gartenstraße 29a, 72074 Tuebingen, Germany

^e Department of Medicine and Psychosomatics, Centre for Psychosocial Medicine, University Hospital Heidelberg, Im Neuenheimer Feld 410, 69120 Heidelberg, Germany

ARTICLE INFO

Article history:

Received 15 May 2014

Received in revised form 25 October 2014

Accepted 5 December 2014

Available online 19 December 2014

Keywords:

Emotion regulation

Affect

Mood

Binge eating

Overeating

Obesity

Overweight

ABSTRACT

Deficits in emotion regulation processes are a common and widely used explanation for the development and maintenance of binge eating disorder (BED). It is assumed that BED patients – as they have difficulty regulating their negative emotions – use binge eating to cope with these emotions and to find relief. However, the number of experimental studies investigating this assumption is scarce and the differentiation of obese individuals with and without BED regarding the emotion regulation model is not verified.

We reviewed literature for experimental studies investigating the emotion regulation model in obese patients (OB) with and without BED. Our search resulted in 18 experimental studies examining the triggering effect of negative emotions for binge eating or its effects on subsequent relief.

We found evidence indicating that negative emotion serves as a trigger for binge eating in the BED group unlike the obese group without BED. Considering the small number of studies, we found evidence for a (short-term) improvement of mood through food intake, irrespective of group.

© 2014 Elsevier Ltd. All rights reserved.

Contents

1. Introduction	126
2. Methods	127
2.1. Literature search	127
2.2. Eligibility criteria	127
2.3. Study selection and data collection procedure	129
3. Results	129
3.1. Study selection	129
3.2. Experimental studies with manipulation of emotion	129
3.2.1. Evidence for the trigger component of the emotion regulation model in BED, OB (BED?) and OB	129
3.2.2. Evidence for the relief component of the emotion regulation model in BED, OB (BED?) and OB	130
3.2.3. Conclusion	130
3.3. Experimental studies assessing emotions without manipulation	130
3.3.1. Evidence for the trigger component of the emotion regulation model in BED	130

Abbreviations: BED, binge eating disorder; BMI, body mass index; BN, bulimia nervosa; BPD, Borderline Personality Disorder; ED, eating disorder; EMA, ecological momentary assessment; LOC, loss of control; non-BED, sample without BED; NWC, normal weight controls; OB, obese sample without BED; OB (BED?), sample with missing information about a diagnosis of BED; N/A, not applicable, data not assessed.

* Corresponding author. Tel.: +49 7071 2983610.

E-mail addresses: elisabeth.leehr@med.uni-tuebingen.de (E.J. Leehr), kerstin.krohmer@psycho.uni-tuebingen.de (K. Krohmer), kathrin.schag@med.uni-tuebingen.de (K. Schag), thomas.dresler@med.uni-tuebingen.de (T. Dresler), stephan.zipfel@med.uni-tuebingen.de (S. Zipfel), katrin.giel@med.uni-tuebingen.de (K.E. Giel).

<http://dx.doi.org/10.1016/j.neubiorev.2014.12.008>

0149-7634/© 2014 Elsevier Ltd. All rights reserved.

3.3.2.	Evidence for the relief component of the emotion regulation model in BED.....	130
3.3.3.	Conclusion.....	130
4.	Discussion.....	130
4.1.	Summary of the results.....	130
4.2.	Interpretation of the results.....	131
4.3.	Methodological limitations.....	131
4.4.	Conclusion and further directions.....	132
	Acknowledgements.....	132
	References.....	132

1. Introduction

With the release of DSM-5 (American Psychiatric Association, 2013), binge eating disorder (BED) was introduced as a distinct eating disorder (ED) diagnosis. Therefore, it is important to gain a better knowledge of the development and maintenance of binge eating. Accordingly it is necessary to acquire a more precise understanding of the disorder, which will enable an improvement of therapeutic interventions. BED is characterised by recurrent binge eating episodes which are defined as eating an unusually large amount of food someone else would not eat in the same period of time and in a similar setting while experiencing loss of control (LOC) (American Psychiatric Association, 2013). Further attributes of binge eating episodes are: eating faster than normal, eating until feeling uncomfortably full, eating without feeling hungry, eating privately due to a feeling of shame and a feeling of guilt or disgust afterwards. Additionally, binge eating episodes are associated with distress and have to occur at least once a week over a period of three months. As self-induced compensatory behaviour (e.g. in bulimia nervosa (BN)) is not utilised, BED often co-occurs with overweight or obesity (de Zwaan, 2001). It has been suggested that obese individuals with BED represent a distinct neurobiological phenotype within the obesity spectrum (Carnell et al., 2012; Schag et al., 2013; Wang et al., 2011), which is characterised by an emotion regulation deficit (Brockmeyer et al., 2014; Danner et al., 2014).

Neurobiological processes concerning self-regulation, including control over one's own eating behaviour, are known to be strongly influenced by emotions (Heatherton and Wagner, 2011). Emotion regulation is defined as the “attempt to influence which emotions we have, when we have them, and how these emotions are experienced or expressed” (Gross, 1998, p. 224). If emotion regulation fails, self-regulation in other areas, like control over eating behaviour, can fail as well. Hence, it seems plausible that explanation models of binge eating behaviour in BED and overeating in obesity trace back to self-regulation failure caused by intense emotions. The term *emotion* can comprise very different meanings ranging from depicting a specific (negative) emotion (e.g. anger or sadness) to simply describing an unspecific emotional state like emotional stress.

From a more behavioural perspective, several emotion regulation theories have been proposed. The *theory of emotional eating* understands eating as a coping strategy in response to emotional distress (Bennett et al., 2013; Bruch, 1973), hence describing a sub-clinical form of disordered eating behaviour in response to emotions. Especially in terms of obese and normal weight persons, emotional eating has been investigated (for an overview see Ganley, 1989; Konttinen et al., 2010; Rommel et al., 2012). There are several theories regarding a more disordered pattern of emotional eating, like overeating (eating a large amount of food) and binge eating (eating a large amount of food and experiencing loss of control). The *escape theory* (Heatherton and Baumeister, 1991) presumes an alleviation of aversive affect *while* bingeing, whereas other theories, like the *affect regulation theory* (Polivy and Herman, 1993), assume an improvement of affect *after* binge eating. According to the

emotional arousal theory, overeating is evoked by emotional arousals in order to reduce the level of arousal (Pine, 1985).

Each of the emotion regulation theories mentioned above includes at least one of the following components: (1) specific or unspecific negative emotions as a trigger for binge eating (i.e. trigger component) and (2) down-regulation of specific or unspecific negative emotions (i.e. relief component) through binge eating in the short-term (while bingeing) or long-term (after a binge episode). To subsume both components, we propose the “emotion regulation model”, which includes the whole emotion regulation process (see Fig. 1).

The components of the emotion regulation model as an account of binge eating have been also addressed in previous reviews. Ganley (1989) gave an overview of studies investigating the relation between emotion and eating in obesity; however, he did not differentiate between populations with or without BED. Another more current narrative review investigated capacities in emotion and impulse regulation, considering possible differences between obese people and people with binge eating (BED and BN) (Fischer and Munsch, 2012). Unfortunately, these two reviews have not been conducted systematically. In contrast, Aldao et al. (2010) conducted a large meta-analytic review concerning emotion regulation strategies in individuals with ED. This specific study did not differentiate between specific subtypes of ED. Affect regulation theory in BED and BN was also evaluated in another meta-analysis (Haedt-Matt and Keel, 2011). However, the focus of this review was restricted to naturalistic studies as they exclusively considered studies using ecological momentary assessment (EMA), thus making a generalisation of the results difficult. Furthermore, the authors focused on binge eating in BN and BED, but possible distinctive patterns of emotion regulation in obese people with and without BED were not addressed. Taking into account the ambiguous outcomes of studies and overcoming the limitations of the available reviews (e.g. no differentiation between overweight/obesity with and without ED, missing discrimination between different types of ED or investigating only naturalistic studies) we investigated the evidence for the emotion regulation model in a systematic review of experimental studies. We define experimental studies as all studies where at least one independent variable was manipulated or all variables have been assessed in a laboratory setting. We additionally aimed at investigating potential differences between overweight/obese individuals with and without BED with the purpose of a clearer distinction of the BED group. Therefore, the following research questions will be addressed: (1) Is there sufficient evidence for the two components (trigger component and relief component) of the emotion regulation model? (2) Are there substantial differences between obese individuals with and without BED regarding the emotion regulation model?

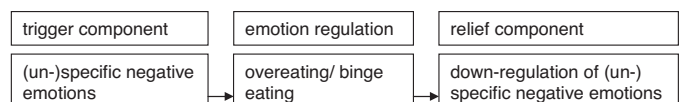


Fig. 1. Components of the emotion regulation model.

Download English Version:

<https://daneshyari.com/en/article/7303678>

Download Persian Version:

<https://daneshyari.com/article/7303678>

[Daneshyari.com](https://daneshyari.com)