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Positive emotion regulation in emotional disorders: A theoretical review

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HIGHLIGHTS

- Positive emotions are an under studied topic in research for emotional disorders.
- Disturbances in positive emotion regulation occur across anxiety and mood disorders.
- Treatment strategies may be adapted to target the regulation of positive emotions.

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ABSTRACT

Conceptualizations of emotion regulation have led to the identification of cognitive and behavioral regulatory abnormalities that contribute to the development and maintenance of emotional disorders. However, existing research on emotion regulation in anxiety and mood disorders has primarily focused on the regulation of negative emotions rather than positive emotions. Recent findings indicate that disturbances in positive emotion regulation occur across emotional disorders, and may be a generative target for treatment research. The aims of this paper are to: 1. Present a transdiagnostic model of positive emotion disturbances in emotional disorders; 2. Review evidence for disturbances in positive emotion regulation in emotional disorders across categories of emotion regulation; and 3. Propose treatment strategies that may address these disturbances.

Contents

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1. Introduction

Conceptualizations of emotion regulation, defined as how individuals influence the onset, course, and experience of their emotions, have proven useful for understanding emotional disorders such as anxiety, depression, and bipolar disorder. Individuals with these disorders tend to experience their negative emotions as overwhelming and uncontrollable, and often lack the skills necessary to manage and regulate these intense emotional experiences (Campbell-Sills, Ellard, & Barlow, in press; Fairholme, Boisseau, Ellard, Ehrenreich, & Barlow, 2010). Transdiagnostic deficits in the regulation of negative emotions have been well characterized in depression and anxiety (e.g., Aldao, Nolen-Hoeksema, & Schweizer, 2010; Campbell-Sills et al., in press; Kring & Sloan, 2010; Mennin, Heimberg, Turk, & Fresco, 2005).

Several lines of evidence now indicate that positive emotion regulation is an important clinical issue in emotional disorders that has implications for both how we conceptualize the phenomenology of these related disorders, and how we approach their treatment. Results from a number of clinical studies suggest that disturbances in positive emotionality, including both excesses and deficiencies in positive emotions, convey vulnerability for emotional disorders (for review, see Brown & Barlow, 2009; Gruber, 2011). Positive emotion regulation deficits likely contribute to such disturbances in positive emotionality, and may function as risk or maintaining factors in the onset and course of these disorders. Thus, positive emotion regulation deficits appear to represent promising therapeutic targets for addressing positive emotionality and related domains of functioning in the treatment of emotional disorders. As correlates of positive emotionality, such as behavioral approach and anhedonia, have often proved resistant to improvement in treatment (see Brown, 2007; Dunlop & Nemeroff, 2007; Treadway & Zald, 2011), new treatment strategies for such problems are greatly needed.

Studies from a range of disciplines, including emotion and affective sciences and clinical, health, and positive psychologies, suggest that the biobehavioral features of positive emotions are distinct from those of negative emotions (Garland et al., 2010), and therefore merit separate attention. Further, in addition to being implicated in the symptomatologies of emotional disorders, positive emotionality appears to have beneficial, generalized effects on health and functioning (e.g., Dockray & Steptoe, 2010; Moskowitz, Epel, & Acree, 2008; Tugade, Fredrickson, & Barrett, 2004). Thus, optimizing positive emotional functioning in the treatment of emotional disorders promises to enhance long-term recovery and resilience in addition to promoting acute symptom reduction (Ehrenreich, Fairholme, Buzzella, Ellard, & Barlow, 2007).

The aims of this paper are to promote more generative research in this area by providing a theory-driven review of the emerging body of literature on disturbances in positive emotion regulation associated with emotional disorders. Gross (1998) process model of emotion regulation, which has proved a useful heuristic for guiding systematic research into deficits of negative emotion regulation (e.g., Kring & Sloan, 2010), is utilized to organize the review. Gross' model identifies five categories of emotion regulation each relevant to a specific phase of the emotion generation process. This structure maintains ecological validity with emotion processes and has the advantage of highlighting potential underlying regulatory mechanisms. We have elaborated upon this model to more specifically identify processes of positive emotion regulation and how they are dysregulated in emotional disorders (see Table 1). This review is organized into five sections: 1. background information on positive emotion and positive emotion regulation; 2. a review of assessment methods relevant to positive emotion regulation; 3. a discussion of processes of positive emotion regulation and evidence of related disturbances associated with emotional disorders within each category of emotion regulation; 4. proposed treatment strategies for positive emotion regulation disturbances; and 5. a summary and discussion of future directions.

2. Background

2.1. Positive emotion

Positive emotions may be comprised of any number of discrete pleasant-valenced emotions, such as joy, pride, contentment, or love, or a more undifferentiated state of positivity. The term positive emotionality refers to a trait-like dimension of emotional temperament that represents an individual's tendency to experience positive emotions (Soskin, Carl, Alpert, & Fava, 2012). Several closely related constructs appear to reflect different facets of a dimension of positive emotionality; these include: positive affectivity, extraversion, and behavioral activation (Brown, 2007).

In addition to their pleasant valence, positive emotions are typically characterized by medium to high levels of physiological arousal (Lang, 1995). The experience of positive emotion has been associated with distinct neurobiological and physiological changes, including increased metabolic activity in regions of the left prefrontal cortex (e.g., Davidson, Ekman, Saron, Senulis, & Friesen, 1990), increased neurotransmission in mesolimbic dopaminergic pathways (e.g., Ashby, Isen, & Turken, 1999), attenuated startle responses (e.g., Bradley, Codispoti, Cuthbert, & Lang, 2001), and increased cardiac vagal tone (e.g., Kok & Fredrickson, 2010; Oveis et al., 2009).

Positive emotions are viewed as functional phenomena that indicate a positive opportunity has emerged or attainment of a desired goal has been achieved, and that mobilize psychophysiological resources for responding to such situations. Several related theories (e.g., Depue & Iacono, 1989; Gray, 1981, 1987) have conceptualized positive emotions as corresponding to a specific affective–motivational system, namely the behavioral approach (or activation) system (BAS), which regulates positive (approach) goal-oriented behavior. Other research has highlighted the role of positive emotions in reward learning (e.g., Berridge & Robinson, 1998). Taken together, these theories identify an appetitive (anticipatory pleasure) and consummatory (experiential pleasure) function for positive emotion.

Fredrickson has suggested that there may also be a post-consummatory function of positive emotions. She hypothesizes that over time, healthy amounts of positive emotions help individuals "broaden-and-build" personal and social resources that enhance functioning and well-being (Fredrickson, 1998, 2001). Well-being is a broad construct that can encompass psychological and physical wellness and life satisfaction, and is closely associated with positive emotions (Diener, Sapyta, & Suh, 1998). In support of Fredrickson's theory, there is evidence that the physiological changes accompanying positive emotions tend to have beneficial effects on health (Burgdorf & Panksepp, 2006; Dockray & Steptoe, 2010; Moskowitz et al., 2008) and functioning (Garland et al., 2010). Research has