

# An experimental investigation of emotional reactivity and delayed emotional recovery in borderline personality disorder: the role of shame

Kim L. Gratz<sup>a,\*</sup>, M. Zachary Rosenthal<sup>b</sup>, Matthew T. Tull<sup>a</sup>, C.W. Lejuez<sup>c</sup>, John G. Gunderson<sup>d</sup>

<sup>a</sup>Department of Psychiatry and Human Behavior, University of Mississippi Medical Center, Jackson, MS 39216, USA

<sup>b</sup>Duke University Medical Center, Durham, NC 27710, USA

<sup>c</sup>Center for Addictions, Personality, and Emotion Research and the Department of Psychology, University of Maryland, College Park, MD 20742, USA

<sup>d</sup>Department of Psychiatry, McLean Hospital and Harvard Medical School, Belmont, MA 02478, USA

## Abstract

Despite the emphasis on emotional reactivity and delayed emotional recovery in prominent theoretical accounts of borderline personality disorder (BPD), research in this area remains limited. This study sought to extend extant research by examining emotional reactivity (and recovery following emotional arousal) to 2 laboratory stressors (one general, and the other involving negative evaluation) and exploring the impact of these stressors on subjective responding across the specific emotions of anxiety, irritability, hostility, and shame. We hypothesized that outpatients with BPD (compared to outpatients without a personality disorder; non-PD) would demonstrate heightened subjective emotional reactivity to both stressors, as well as a delayed return to baseline levels of emotional arousal. Results provide evidence for context- and emotion-specific reactivity in BPD. Specifically, BPD participants (compared to non-PD participants) evidenced heightened reactivity to the negative evaluation but not the general stressor. Furthermore, results provide support for shame-specific reactivity in BPD, with BPD participants (vs non-PD participants) evidencing a significantly different pattern of change in shame (but not in reported anxiety, irritability, or hostility) across the course of the study. Specifically, not only did BPD participants report higher levels of shame in response to the negative evaluation, their levels of shame remained elevated following this stressor (through the post-recovery period at the end of the study). Findings suggest the importance of continuing to examine emotional reactivity in BPD within specific contexts and across distinct emotions, rather than at the general trait level.

© 2010 Elsevier Inc. All rights reserved.

## 1. Introduction

Problems with the experience and expression of emotions are considered to be central to borderline personality disorder (BPD) [1,2], with the higher-order trait of emotional dysfunction identified by many BPD researchers as a “core” personality trait underlying the disorder. Although several different lower-order emotion-related traits have been linked at a theoretical and empirical level to BPD, including affective instability [2], anxiousness [3], affect intensity [1], and anxiety sensitivity [4], 2 lower-order traits considered to be particularly relevant to BPD are emotional reactivity (ie, the tendency to have strong emotional

reactions to stimuli) and delayed recovery (ie, slow return to baseline levels of emotional arousal following the activation of an emotion) [1]. In fact, even the characteristic of affective instability (see references [2,5,6]) was defined in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* to emphasize emotional reactivity (see reference [7]).

Yet, despite the emphasis on emotional reactivity and delayed recovery in prominent theoretical accounts of BPD [1], research in this area remains relatively limited and no studies have examined emotional reactivity and delayed recovery in regard to specific emotional states and contexts. Thus, the goal of the current study was to extend extant research by examining emotional reactivity (and recovery following emotional arousal) to 2 laboratory stressors and exploring the impact of different stressors on specific subjective emotional states.

\* Corresponding author. Tel.: +1 601 815 6450.

E-mail address: [klgratz@aol.com](mailto:klgratz@aol.com) (K.L. Gratz).

### 1.1. Emotional reactivity and delayed recovery in BPD

Emotional reactivity broadly refers to responses that occur within 1 or more systems of emotional responding (ie, subjective, physiological, motoric/expressive) following changes in the external or internal environment [8]. Furthermore, emotional reactivity can be differentiated from the related construct of affect intensity, with the latter denoting the general tendency to experience intense emotions across environmental contexts and the former referring to more discrete and proximal responses to specific environmental events.

Despite the theorized importance of emotional reactivity per se to BPD, however, very few studies have examined this trait in particular, with most studies of self-reported emotional dysfunction in BPD collapsing across multiple lower-order traits. For example, although studies using the Affect Intensity Measure (AIM) [9] provide evidence for heightened levels of a generalized affect intensity/reactivity among individuals with BPD (compared to individuals with other personality disorders or bipolar II disorder) [10,11], none of these studies has examined the extent to which emotional reactivity per se is heightened among individuals with BPD; thus, it is possible that the observed between-group differences on the AIM are solely the result of heightened levels of self-reported affect intensity among individuals with BPD.

Nonetheless, providing preliminary support for a relationship between emotional reactivity per se and BPD, a recent study found that BPD features among college students are positively associated with self-reported negative emotional reactivity [12]. Moreover, despite failing to provide consistent evidence for heightened psychophysiological reactivity in BPD [13–18], results of laboratory-based studies investigating emotional reactivity in BPD provide further support for heightened subjective emotional reactivity in BPD. Specifically, 2 studies examining emotional reactivity to emotionally evocative and neutral images found that individuals with BPD (compared to healthy controls) reported greater subjective reactivity to neutral images, despite demonstrating lower psychophysiological reactivity to all images [14,15].

Even less research has examined the relationship between delayed emotional recovery and BPD, with most literature in this area being theoretical in nature [1]. However, results of a recent study using an ecological momentary assessment approach provide suggestive evidence for delayed recovery following emotional arousal among individuals with BPD, finding that individuals with BPD reported a longer duration of emotional distress than healthy controls [19].

The preliminary evidence for heightened subjective emotional reactivity and delayed emotional recovery in BPD notwithstanding, further research is needed to examine the nature and extent of emotional reactivity and delayed recovery among individuals with BPD across specific emotional states. In particular, although evidence suggests

that the emotional reactivity and delayed recovery in BPD may be specific to negative emotions [19,20] (with studies demonstrating a general underresponsiveness and hypo-reactivity for positive emotions in BPD; see references [21,22]), additional research is needed to examine these traits across distinct negative emotions. Indeed, research on the related trait of affective instability has found that the affective instability characteristic of BPD does not involve all emotions but is emotion-specific [11]. Specifically, research is needed to examine the particular emotions of anger, anxiety, and shame, all of which have been emphasized in the literature on BPD [3,11,23–28].

### 1.2. Anger and anxiety in BPD

Historically, theoretical and clinical literature on BPD emphasized the relevance of anger and anxiety to this disorder [23–25], noting the prominence of these emotions among individuals with BPD [24–26,29,30]. This literature is supported by empirical research suggesting the relevance of these emotions to BPD. For example, in the aforementioned study of affective instability in BPD, Koenigsberg and colleagues [11] found that the affective instability characteristic of patients with BPD is specific to anger and anxiety, with results indicating greater lability of anger and anxiety (but not depression and elation) among patients with BPD (vs those with other personality disorders), even when controlling for mood disorders, gender, and age.

With regard to research on the relevance of anger in particular to BPD, studies have found heightened levels of anger, hostility, and irritability among individuals with BPD (compared to both healthy controls [31] and patients with a mood disorder [32]), consistent with the theorized centrality of anger in general [25,29,30], and hostility and irritability in particular [23,24,33], in BPD. As for research on the relevance of anxiety to BPD, in addition to evidence that patients with BPD exhibit elevated symptoms of anxiety (eg, see references [26,34]) and have high rates of co-occurring anxiety disorders [35–37], the trait of anxiousness has the highest loading on the emotion dysregulation factor of the Dimensional Assessment of Personality Pathology [38], proposed by Livesley and colleagues [3] to be the core feature of BPD.

### 1.3. Shame and BPD

More recently, literature has begun to emphasize the central role of shame in BPD, with this emotion in particular thought to underlie some of the most troubling symptoms associated with this disorder (eg, suicidal behaviors, deliberate self-harm, and aggressive behaviors) [1,27,28]. Indeed, it has even been suggested that BPD may best be conceptualized as a chronic shame response [39].

The development of an overwhelming shame response (or shame-proneness) among individuals with BPD is thought to begin at an early age in response to chronic experiences of abuse, neglect, and/or invalidation [27,39].

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات