

Emotional Processes in Borderline Personality Disorder: An Update for Clinical Practice

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Despite prior assumptions about poor prognosis, the surge in research on borderline personality disorder (BPD) over the past several decades shows that it is treatable and can have a good prognosis. Prominent theories of BPD highlight the importance of emotional dysfunction as core to this disorder. However, recent empirical research has suggested a more-nuanced view of emotional dysfunction in BPD. This research is reviewed in the present article, with a view toward how these laboratory-based findings can influence clinical work with individuals suffering from BPD.

Keywords: borderline personality disorder, emotion dysregulation, emotion regulation, dialectical behavior therapy

Borderline personality disorder (BPD) is a severe mental health condition characterized by emotional instability, impulsive and self-damaging behaviors, and stormy interpersonal relationships (American Psychiatric Association, 2013). This disorder heavily taxes the mental health care system (Bagge, Stepp, & Trull, 2005; Comtois et al., 2003) and results in high personal, economic, and societal costs (van

Asselt, Dirksen, Arntz, & Severens, 2007). Despite the pressing need to provide treatment for individuals with BPD, clinicians may hesitate to do so due to discomfort working with the high-risk behaviors and intense interpersonal and emotional dysregulation typical of those with the disorder. Thus, better understanding of the emotional processes involved in BPD may help increase clinicians' willingness to treat this population and help facilitate better client outcomes.

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Treatments for BPD

Although BPD has historically been seen as a chronic condition with a poor prognosis (James & Cowman, 2007; Lewis & Appleby, 1988), the amassed research of the past several decades has painted a more-hopeful picture. In fact, several psychological treatments, including dialectical behavior therapy (DBT; Linehan, 1993), mentalization-based treatment (MBT; Bateman & Fonagy, 1999), transference-focused psychotherapy (TFP; Doering et al., 2010), schema-focused therapy (Giesen-Bloo et al., 2006), and general psychiatric management (McMain et al., 2009), have garnered empirical support for the treatment of BPD. Each of these treatments

is predicated on different theoretical frameworks of the development and maintenance of BPD and therefore has differing emphases regarding the putative mechanisms underlying BPD and its treatment. To date, there is little empirical guidance to suggest whether or when to choose one of these interventions over others. Moreover, although the proliferation of evidence-based treatments for BPD is encouraging in terms of providing more treatment options for those who are suffering from this disorder, it can be daunting for clinicians to learn various treatments and determine which might work best for whom. The identification of translational (and, potentially, transtheoretical) factors underlying BPD and its treatment could be useful to help guide clinicians and their clients in terms of what to focus on in therapy. This process has been described as similar to a chef knowing the key principles of cooking without having to memorize a thousand specific recipes. One process to consider that has translational relevance in BPD and other disorders is emotional functioning.

Research on Emotional Dysfunction in BPD

Although theory and research have consistently pointed to emotional dysfunction as a core disturbance in BPD (Crowell, Beauchaine, & Linehan, 2009; Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004; Trull, Tomko, Brown, & Scheiderer, 2010), the precise nature of this disturbance remains unclear. A prominent model of BPD, the biosocial theory (Linehan, 1993), posits that BPD arises as a result of the complex interplay of the child's biologically based emotional vulnerability and environmental responses that are seen as invalidating, minimizing, or trivializing the child's negative affect. As a result, individuals with BPD develop pervasive emotion dysregulation. From this standpoint, many of the problems associated with BPD, such as impulsivity and poor social functioning, are seen as a direct consequence of intense emotional reactivity or the result of efforts to avoid or escape distress. The biosocial theory led to some broad generalizations about the nature of emotional responding in BPD; namely, that individuals with BPD demonstrate (a) emotional sensitivity, such that there is a lower threshold for recognizing or reacting to emotionally relevant cues; (b) emotional reac-

tivity, as seen by larger emotional reactions to emotional stimuli; and (c) a slow return to baseline, so that it takes longer for these individuals' emotional response to pass, implying that they have access to few effective strategies to regulate their emotions (Linehan, 1993). Whereas emotion research has focused on the roles of both "bottom-up" and "top-down" emotional processes (Ochsner & Gross, 2005; Ochsner et al., 2004), Linehan's model emphasizes dysfunction in terms of the bottom-up processes, such as automatic emotional reactivity. By contrast, top-down emotion regulatory processes may modulate this emotional reactivity, such as through distraction, reappraisal, or distancing strategies. Research studies evaluating emotional responding in BPD have yielded mixed results, however, and have suggested a more-nuanced perspective of emotional functioning in BPD (e.g., Rosenthal et al., 2008).

Behavioral and Cognitive Dysfunction in BPD Is Emotion-Dependent

From the perspective of the biosocial theory, many of the behavioral problems associated with BPD have been seen as a consequence of emotional vulnerability and dysregulation. Empirical literature has supported this notion. For instance, although impulsivity has commonly been seen as a traitlike feature of BPD, weak and inconsistent associations between BPD and impulsivity on laboratory tasks have led researchers to suggest that the impulsivity seen in BPD may be the consequence of emotion dysregulation (Sebastian, Jacob, Lieb, & Tüscher, 2013). Indeed, in a self-report study, BPD features were most strongly associated with emotion-related impulsive behavior (Peters, Upton, & Baer, 2013), and participants high in BPD symptoms have exhibited greater impulsivity on a behavioral task than have low-BPD participants only following a negative emotion induction (Chapman, Dixon-Gordon, Layden, & Walters, 2010). Similarly, participants high in BPD symptoms have evidenced impairments in social problem solving compared to their healthy counterparts only after a negative emotion induction (Dixon-Gordon, Chapman, Lovasz, & Walters, 2011).

These reactions to emotions evident in BPD may interact with larger scale cognitive deficits (Fertuck, Lenzenweger, Clarkin, Hoermann, &

Stanley, 2006; Lenzenweger, Clarkin, Fertuck, & Kernberg, 2004). Whereas executive functions traditionally viewed as unrelated to emotional functioning (such as motor inhibition or working memory) seem to be intact in BPD (LeGris, Toplak, & Links, 2014; van Reekum, Links, & Fedorov, 1994), those with BPD appear to struggle with affective decision-making in particular. For instance, relative to healthy controls, those with BPD made significantly more disadvantageous decisions on delay-discounting tasks, showing favor for immediate rewards over long-term gain (LeGris et al., 2014; van Reekum et al., 1994) and discounting rewards that were less certain (van Reekum et al., 1994). Likewise, individuals with BPD, relative to their healthy counterparts, have exhibited riskier decision-making when problems were framed in terms of potential losses but not when framed in terms of potential gains (Sánchez-Navarro, Weller, López-Navarro, Martínez-Selva, & Bechara, 2014).

Consistent with the notion in DBT of *apparent competence*, these findings suggest that clients with BPD may be able to act quite skillfully at times and that only under conditions of intense emotion do they act impulsively or struggle with resolving interpersonal difficulties. Therefore, it is important that clinicians understand that their clients with BPD (a) are not generally unskilled, (b) do not have access to the same skills across all emotional contexts, and (c) require help accessing and implementing their strengths and skills under conditions of emotional distress. Also, these findings suggest that one strategy for improving functioning in a variety of domains in BPD may be to target the underlying emotional dysfunction.

Emotional Vulnerability in BPD May Be Context-Specific

Overall, people suffering from BPD symptoms report heightened emotional reactivity on questionnaires (Cheavens et al., 2005; Henry et al., 2001; Tragesser & Robinson, 2009). Compared to healthy participants, participants with BPD in ecological momentary assessment studies (see Santangelo, Bohus, & Ebner-Priemer, 2014) report more frequent, intense, unstable, and persistent negative emotional responses (Ebner-Priemer & Sawitzki, 2007; Ebner-Priemer et al., 2007; Reisch, Ebner-Priemer,

Tschacher, Bohus, & Linehan, 2008; Stiglmayr et al., 2005; Trull et al., 2008) and greater emotional reactivity to negative interactions (Sadikaj, Russell, Moskowitz, & Paris, 2010; Stepp, Hallquist, Morse, & Pilkonis, 2011).

Studies using laboratory paradigms to examine how individuals with BPD respond to emotional cues in real time have yielded mixed findings. Some studies have revealed evidence of greater self-reported (Dixon-Gordon et al., 2011), neural (Donegan et al., 2003), and physiological (Ebner-Priemer et al., 2005; Weinberg, Klonsky, & Hajcak, 2009) reactivity to emotional stimuli among those with BPD or elevated BPD symptoms, compared with controls. Yet other studies have suggested that those with BPD are *less* emotionally reactive in terms of psychophysiological measures (Herpertz, Kunert, Schwenger, & Sass, 1999). Still other studies have found that those with BPD reported higher negative emotions at baseline (Jacob et al., 2009; Kuo & Linehan, 2009; Reitz et al., 2012) but reactivity that was no different from that in controls. In addition, whereas some research has revealed that, compared with healthy participants, those with BPD took longer to recover emotionally (Reitz et al., 2012) or evidenced more-prolonged experiences of specific emotions, such as shame (Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2010), another study revealed no such differences (Fitzpatrick & Kuo, 2015). Such inconclusive findings raise the question of under what conditions one can expect to see elevated emotional vulnerability in BPD.

One possibility is that emotional reactivity may be particularly pronounced among those with BPD in response to social stressors and to interpersonal and self-conscious emotions (e.g., anger, shame). Studies relying on interpersonal emotion stimuli have more consistently shown elevated emotional reactivity in participants with BPD or BPD symptoms than have controls (Dixon-Gordon et al., 2011; Hazlett et al., 2007; Limberg, Barnow, Freyberger, & Hamm, 2011; Sauer, Arens, Stopsack, Spitzer, & Barnow, 2014). One study found greater negative emotional reactivity in response to social, compared to nonsocial, stressors in individuals high in PD symptoms (Chapman, Walters, & Dixon-Gordon, 2014).

Emotional vulnerability in BPD may also vary across specific emotions (Scheel et al.,

2013). In particular, emotional instability in daily life has been seen in BPD in terms of sadness, hostility, and fear (Trull et al., 2008). Laboratory studies have found evidence of greater subjective reactivity in terms of shame (Gratz et al., 2010), anger (Kuo, Neacsiu, Fitzpatrick, & MacDonald, 2014), and fear or anxiety (Dixon-Gordon et al., 2015) and greater amygdala reactivity in terms of fear (Minzenberg, Fan, New, Tang, & Siever, 2007) among participants with BPD compared with healthy controls.

The Interrelations of Interpersonal Processes and Emotions in BPD

As noted earlier, individuals with BPD may be particularly reactive to social stressors. In particular, consistent with the biosocial theory, there has been evidence that perceived negative evaluations or criticism from others may actually exacerbate the bottom-up emotional reactivity in BPD (Shenk & Fruzzetti, 2011, 2014). As well, individuals with BPD symptoms may be more likely to appraise social cues in a negative light, perceiving criticism and rejection where others would not. BPD and BPD features are linked to heightened self-reported rejection sensitivity (Gardner, Qualter, & Tremblay, 2010; Staebler, Helbing, Rosenbach, & Renneberg, 2011), as well as increased reactivity to rejection in the laboratory. In a simulated computer game, not only did participants with BPD report greater experiences of rejection when being “rejected” (receiving limited interaction from other players) but they also reported greater feelings of rejection when they received the same interaction as did other players (Domsalla et al., 2014). Participants with BPD have also demonstrated greater activation of the dorsal anterior cingulate (associated with social pain) and medial prefrontal cortex (associated with self-regulation efforts) in such situations (Domsalla et al., 2014). Further, whereas both BPD and healthy individuals have greater brain potentials associated with stimulus evaluation in response to exclusion in this activity, only the BPD participants have shown this response to the inclusion condition (Gutz, Renneberg, Roepke, & Niedeggen, 2015).

Rumination in response to rejection may play a key role in driving BPD features (Peters, Smart, & Baer, 2015; Selby, Anestis, Bender, &

Joiner, 2009). *Rumination*, defined as repetitive, unproductive thought, contributes to *emotional cascades* in BPD (Selby et al., 2009), where rumination amplifies distress, prompting impulsive attempts to escape emotions, resulting in further problems and distress. In particular, rumination about experiences of rejection and corresponding shame may contribute to intense anger in BPD. Individuals with BPD have shown a greater link between rejection and subsequent anger than have controls (Berenson, Downey, Rafaeli, Coifman, & Paquin, 2011). Similarly, rumination has accounted for the association between shame and elevated BPD symptoms (Peters, Geiger, Smart, & Baer, 2014). This tendency toward rumination in BPD has been linked with lower levels of the general tendency to engage in present-focused awareness, an important element of mindfulness (Selby, Fehling, Panza, & Kranzler, 2016), suggesting the potential utility of mindfulness-based interventions in BPD.

In addition to perceiving social rejection more readily and reacting to social rejection more intensely, individuals with BPD may inadvertently engage in behaviors that could actually impair social relationships. For instance, individuals with BPD have exhibited fewer nonverbal signals inviting social interaction, such as nodding or smiling in response to an interviewer, compared with controls (Brüne, Kolb, Ebert, Roser, & Edel, 2015). On a laboratory task, participants with BPD avoided happy faces more than did healthy controls (Kobeleva et al., 2014). This finding is echoed by other studies of facial emotion processing in BPD (Mitchell, Dickens, & Picchioni, 2014), which have generally suggested that BPD is associated with a negative response bias to neutral or ambiguous stimuli (see Baer, Peters, Eisenlohr-Moul, Geiger, & Sauer, 2012). In addition, individuals with BPD were less likely to appraise faces as trustworthy compared with healthy participants (Fertuck, Grinband, & Stanley, 2013; Miano, Fertuck, Arntz, & Stanley, 2013). Likewise, high levels of BPD features were associated with less cooperation in a hypothetical interpersonal scenario (Thielmann, Hilbig, & Niedtfeld, 2014), and individuals with BPD exhibited greater difficulties in repairing cooperation after a rupture on a behavioral task than did healthy individuals (King-Casas et al., 2008). Social relationships are also fraught with

more potential consequences in BPD compared with other groups. For instance, whereas social proximity was associated with predominately positive and negligible negative outcomes for healthy controls, those with BPD reported benefits (e.g., increased positive affect), as well as more costs, such as increased anger and shame (Gadassi, Snir, Berenson, Downey, & Rafaeli, 2014). Perhaps as a result, BPD features have been associated with fewer social supports and less satisfaction with these social supports (Zielinski & Veilleux, 2014).

Overall, individuals with BPD appear more sensitive to social stressors, perceiving even benign situations as negative. They are more likely to respond with intense emotional responses to these perceived stressors. In turn, as also seen in romantic relationships when partners are emotionally aroused (whether the partners have symptoms of BPD or not), this intense emotional arousal may actually lead to further social difficulties (Gottman, 1993). As a result, those with BPD tend to have less-fulfilling social supports. Researchers have proposed that these weakened social networks provide less social support for helping these individuals cope with distress, further impairing their emotion regulation abilities (Hughes, Crowell, Uyeji, & Coan, 2012). Consequently, treatments for BPD may benefit from incorporating strategies to reduce this tendency to ascribe negative to benign or ambiguous situations. In addition, therapists may benefit from checking in with their clients about negative interpretations the clients might have in the moment about therapist behavior. Indeed, existing treatments for BPD (e.g., TFP and DBT) utilize strategies to address the social-cognitive processes underlying this rejection sensitivity. For instance, DBT therapists might explicitly use genuine self-disclosure to reduce the likelihood of such negative interpretations and to provide feedback to clients regarding typical responses. Similarly, TFP uses therapy as a context in which the client and therapist can actively explore and question the client's fears that the therapist is rejecting or cold. This "here and now" focus in the therapeutic relationship is intended to foster an ability to down-regulate and reflect upon intense states of fear and anger and to invite multiple perspectives on the therapeutic relationship that the patient may extend to other relationships.

Emotion Dysregulation in BPD: More Regulation May Not Be Better

Existing self-report research has revealed a consistently strong association between BPD and a wide range of dimensions of emotion dysregulation, including low emotional awareness, clarity, acceptance, limited access to effective down-regulation strategies, and difficulty controlling behaviors in the context of negative affect (Beblo et al., 2013; Bornovalova et al., 2008; Gratz, Tull, & Gunderson, 2008; Gratz, Tull, Matusiewicz, Breetz, & Lejuez, 2013; Kuo & Linehan, 2009; Leible & Snell, 2004; Yen, Zlotnick, & Costello, 2002). Laboratory-based measures have also demonstrated emotion dysregulation among individuals with BPD, including lower emotional awareness and clarity (Levine, Marziali, & Hood, 1997) and greater unwillingness to experience distress in order to pursue goal-directed behavior (Bornovalova et al., 2008; Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2006).

There is relatively less research on specific top-down emotion regulation strategies in BPD. In terms of specific strategies, participants with BPD have reported greater use of avoidant regulation strategies on trait measures (Beblo et al., 2013). BPD features have also been associated with self-criticism, thought suppression, avoidance, and alcohol use as strategies for regulating emotions (Aldao & Dixon-Gordon, 2014). Contrary to the expectation that participants with BPD may have access to fewer emotion regulation strategies, participants high in BPD features reported using more strategies in a laboratory situation than did those low in BPD features, with the exception of lower use of emotional acceptance (Chapman, Dixon-Gordon, & Walters, 2013). There is some evidence that putatively adaptive strategies for regulating emotions, such as reappraisal, may actually work less well for clients with BPD. In a study in which participants with and without BPD were instructed to down-regulate their emotional reactions to imagined threat and suffering using reappraisal (i.e., they were coached to imagine the situation was not real or that they were detached observers), participants with BPD showed less activation in brain regions associated with regulation (the left orbitofrontal cortex) compared with controls (Schulze et al., 2011). In addition, another presumed adaptive

strategy, emotional acceptance, may actually lead to heightened short-term distress in BPD. In daily life, participants high in BPD symptoms reported greater negative emotions and more urges for maladaptive behaviors on days when they were instructed to observe their negative emotions than on days when they were instructed to suppress their emotions (Chapman, Rosenthal, & Leung, 2009). However, one problem with laboratory research on emotion regulation is the presumption that individuals with BPD are capable of implementing these strategies as directed. For instance, whereas one may instruct individuals to mindfully observe their emotions, they may in fact be noticing and judging these experiences. Indeed, individuals with BPD have demonstrated very high levels of judgmental attitudes toward their internal experiences (Wupperman, Neumann, & Axelrod, 2008), and it likely requires practice beyond the scope of most experiments to change this tendency. Using strategies that prompt for observing or awareness may be useful in the context of BPD only when practiced in concert with a nonjudgmental quality and may even be harmful in the context of high levels of judging (Peters, Eisenlohr-Moul, Upton, & Baer, 2013).

Taken together, these findings underscore the difficulty in teaching participants with BPD more-adaptive forms of regulating their emotions. Individuals with BPD may already be using many strategies, but those putatively adaptive strategies may be more difficult to implement in real life and may actually lead to greater awareness of distress, at least initially. For example, mindfulness- and acceptance-based exercises are effortful activities that, until well practiced, may *reduce* distress tolerance due to fatigue and self-regulatory deficits (Evans, Eisenlohr-Moul, Button, Baer, & Segerstrom, 2014). This effect exists for all individuals but may be particularly pronounced in those with BPD, who are presumably even less familiar with these skills. As well, how many strategies a person uses may be an imperfect proxy for emotion regulation. Rather, the inability to tolerate emotions may yield a desperation or frantic search for any strategy to alleviate distress. This nonaccepting stance toward emotions may prompt engagement in putatively maladaptive strategies. On the other hand, presumed maladaptive strategies, such as avoidance, suppression, and substance use, may

be reinforced in the short term because they work so well initially. In the mid to long term, however, avoidance interferes with effective coping and has been associated with greater psychopathology overall (Aldao, Nolen-Hoeksema, & Schweizer, 2010).

Emotional Dysfunction as a Mechanism of Change in Treatments for BPD

Although emotional functioning has been identified as a key mechanism of change in BPD treatments (Fonagy & Bateman, 2006; Levy, Clarkin, et al., 2006; Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006), there has been a relative dearth of research in this area. Further, perspectives have diverged in terms of why and how emotional functioning is important in these treatments. For instance, from a TFP and MBT perspective, improvements in emotional functioning, especially within attachment relationships, lead to improved symptoms of BPD by increasing the stability and consistency of clients' views of themselves and others (Fonagy & Bateman, 2006; Levy, Meehan, et al., 2006). Findings have suggested that DBT results in decreased emotional reactivity and improved emotion regulation (Goodman et al., 2014) and that improvements in aspects of emotion regulation (such as emotional awareness and clarity) are associated with greater improvements in symptoms, distress, and interpersonal functioning among patients with BPD (McMain et al., 2013). Consistent with the DBT focus on skills training, DBT skills use has accounted for improvements in suicide attempts, depressive symptoms, and anger control over time in DBT (Neacsiu, Rizvi, & Linehan, 2010). In a brief adjunctive emotion regulation group therapy for women with BPD symptoms and self-injury, improvements in emotion dysregulation accounted for reduced cognitive and affective BPD symptoms (Gratz, Bardeen, Levy, Dixon-Gordon, & Tull, 2015). These data, although preliminary, suggest that the path to treatment gains in BPD is paved with enhanced emotion regulation.

Clinical Implications of Existing Emotion Research in BPD: A Case Example

Although much of the research reviewed refers to how BPD affects people on average,

these principles are perhaps more apparent when applied to a particular clinical case. The following is a hypothetical, fictional scenario based on an amalgamation of our clinical experiences.

Case Overview

Jill, a 41-year-old White woman on disability leave from her administrative role at a hospital, was referred for treatment by her primary care provider. She described having difficulties with emotional instability, impulsive behaviors, stormy relationships, stress-related paranoid ideation, and difficulties controlling anger from an early age. Jill reported having, beyond recurrent depression and panic attacks, a pattern of problematic use of alcohol and drug use since adolescence. Although she noted that she had achieved sobriety in her 30s following counseling, Jill's worsening chronic pain resulted in increased opiate use for pain management. Jill stated that "[the opioid use] is not a problem yet, but I know it will be if I don't get more help." In addition to recent flares regarding her chronic pain, she reported, her most recent romantic relationship had become very stormy. She reported seeking help at this time to "finally figure out how to manage my emotions and relationships."

Jill described that, as a child, she was "always sensitive," both emotionally and physically. Having suffered from headaches and various illnesses from an early age, Jill noted that her parents "were always frustrated, at a loss, and did not know what to do with [her]." She recalled that her parents had a rocky relationship. They reportedly worked multiple jobs, trying to make ends meet, and were "always tired and too busy for me." As a sensitive child, Jill frequently took her parents' busyness to heart and felt ashamed and mad at herself for wanting their attention and care. When she really needed something, Jill reportedly had to "make a scene" to get their attention, raising her voice and complaining of intense physical pain. Occasionally reinforcing these outbursts, her parents would often apologize and try to soothe her.

Although she reported doing well until junior high school, Jill said that she then fell in with a "bad crowd" and thereafter started using illicit substances. She also reported having a string of

"bad relationships," characterized by jealousy, frequent arguments, and substance use. Despite these difficulties, she graduated from high school and subsequently completed a 2-year college degree.

Although her personal life was often turbulent, Jill reported finding solace and a sense of competence at work. She reported working for her current employer for nearly seven years and has been promoted several times. She functions quite well at work, although Jill noted that when she is stressed, she becomes upset, thinking that colleagues are trying to undermine her. With her worsening chronic pain, Jill ultimately took leave from work.

Currently, Jill is in a relationship that she said is her "first good relationship in a long time" but noted that her worsening emotional instability and use of pain medication had put a strain on this relationship. Jill acknowledged feeling ashamed that she has been unable to work and has experienced increasing irritability since ceasing work. She said that "I know I keep having these ups and downs, but if I don't get off this roller coaster, I'm worried he's just going to get sick of it and leave me."

Treatment Implications

Although BPD is a heterogeneous disorder, Jill's case illustrates one pathway that leads to the development of emotion dysregulation. She exhibited heightened emotional vulnerability at an early age, particularly in terms of shame and anger, consistent with basic research. Her intense expressions of emotions would occasionally result in interpersonal support and soothing. Moreover, she inadvertently came to believe that her emotions were wrong or unacceptable and stumbled upon a strategy for alleviating distress in the short term through substance use. Of note, Jill encountered particular difficulties in interpersonal contexts, especially romantic ones. Of importance, she exhibited strengths in the workplace, highlighting that those with BPD can often function at a high level in certain settings. Nevertheless, this level of functioning may be context-dependent, because, in the realm of relationships, Jill struggled with understanding her emotions and expectations in the relationship.

From a treatment perspective, one approach might be to increase Jill's tolerance and accep-

tance of negative emotions such as shame and anger. One DBT strategy to increase emotional acceptance would be through teaching mindfulness skills such as taking a nonjudgmental stance and observing one's emotions. Another DBT tactic might be informal emotional exposure, such as encouraging Jill to describe her negative emotional experiences and sit with this experience without engaging in avoidance behaviors. As well, a DBT therapist may employ more-formal exposures, such as generating a hierarchy of situations in which Jill experiences shame, but such shame does not fit or is out of proportion to the observable facts of the present situation. Then, the therapist might guide Jill in imaginal and/or real live exposure to these cues or situations without engaging in avoidance behaviors, with the aim of extinguishing her shame response (Rizvi & Linehan, 2005). Another approach would be to formulate Jill's shame experience as representing a harsh, critical attitude she has toward herself that might have a particular meaning and context that she could further understand. In TFP, intense emotional experiences are assumed to organize polarized positive and negative attitudes of the self and others. A TFP therapist might help Jill to tolerate and understand her shame as rooted in the assumption that she is all "bad" and others all "good." Over time, the therapist would help Jill to obtain a more-balanced view of self and others that tones down these polarized experiences.

In teaching strategies for reducing or tolerating negative emotions in the moment, one may need to take special care to clarify the reasons for reducing negative emotions. Although DBT distress tolerance strategies, such as deep breathing, might be very appealing to Jill in terms of reducing acute distress and the associated emotion-related behaviors (e.g., aggression), attention might be needed to ensure these strategies are not overused. For instance, she may need to be encouraged to return to the prompting event and engage in problem solving around the issue that first triggered her anger.

Because interpersonal situations often elicit emotional reactivity and problematic interpersonal functioning, teaching interpersonal skills in emotional contexts is particularly important. For example, it might be important to teach Jill strategies for reducing her distress (such as by listening to music or taking a walk) before at-

tempting to resolve an interpersonal conflict. Alternatively, when she is distressed she might rehearse interpersonal skills, such as making requests or saying no skillfully. From a TFP perspective, the therapist might help Jill to explore her expectations in romantic relationships, with the possibility that she is placing unrealistic and idealistic expectations on the relationship that lead to crushing disappointments and anger. This would lead to a more-realistic understanding and anticipation of her romantic partner's behavior and less of an intense sense of frustration and anger.

In addition, it would be important to recognize that executive functioning skills may not always be accessible. Whereas Jill demonstrated a high level of executive functioning at work or school, it would be useful for their therapists to recognize they may struggle in other domains, especially with inhibiting emotion-dependent impulsive behaviors. For Jill, using environmental control strategies, such as limiting access to substances she might use by ensuring alcohol and drugs are not in her house, may be more effective than relying on her ability to self-regulate and inhibit behaviors when she is upset.

Suggestions for Future Research and Practice

Although the existing literature base provides more knowledge about the nuanced nature of emotional dysfunction in BPD, there is still far to go. In particular, incorporating laboratory assessments in treatment research holds promise for pinpointing specific mechanisms of change and, therefore, intervention targets. This line of research has the potential to streamline existing treatment packages to be more lean and efficient. Additionally, understanding how these aspects of emotional dysfunction may interact with other important processes associated with BPD, such as mentalization (i.e., the ability to make sense of one's own and others' internal states), warrants further attention.

Clinically, it is crucial to consider how difficulties in emotion regulation may affect clients and their ability to engage in treatment. Individuals with BPD may vary considerably in their presentation, cognitions, and behavior according to their emotional state. Interpersonal factors are likely to be a potent trigger of emotions

and resulting dysregulation. Given the emotional and interpersonal nature of the therapeutic process, these factors impact not only the lives of individuals with BPD broadly but also therapy itself. Providing a balance of challenge and support, in a validating environment, and acknowledging the powerful influence of emotions on functioning is likely an important starting point for treatment, regardless of modality.

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Procesos emocionales en el trastorno límite de personalidad: una actualización para la práctica clínica

A pesar de que se solía ver como un trastorno con mal pronóstico, el aumento de la investigación sobre el Trastorno de Personalidad Límite (TPL) en las últimas décadas muestra que es tratable y puede tener un buen pronóstico. Las teorías prominentes de TPL destacan la importancia de la disfunción emocional como núcleo de este trastorno. Sin embargo, recientes investigaciones empíricas sugieren una visión más matizada de la disfunción emocional en la TPL. Esta investigación se revisa en el presente artículo, con vistas a cómo estos hallazgos basados en el laboratorio pueden influir en el trabajo clínico con personas que sufren de TPL.

trastorno límite de la personalidad; desregulación emocional; regulación emocional; terapia conductual

边缘性人格障碍中的情感过程：临床实践的更新

尽管（有）事先假定地不良预后，过去几十年来对边缘人格障碍（BPD）研究的激增表明它是可治疗的并且可以有很好的预后。BPD的突出理论强调情绪功能障碍作为这种疾病的核心重要性。然而，最近的实证研究表明了BPD中情绪功能障碍更为细微的观点。这项研究在本文中被回顾，以表达这些基于实验室的发现是如何影响患有BPD的个体的临床工作的观点。

边缘性人格障碍；情绪功能障碍；情绪功能；辩证行为疗法

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