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Shame as a prospective predictor of self-inflicted injury in borderline personality disorder: A multi-modal analysis☆

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ABSTRACT

The primary aim of this study was to examine the prospective association of shame with self-inflicted injury (SII), including suicide attempts and nonsuicidal self-injury, among women with borderline personality disorder (BPD) who were enrolled in a clinical trial ($N = 77$). A multi-method approach was used to assess self-reported shame, nonverbal shame behaviors, and assessor ratings of shame during an interview regarding antecedents for a recent episode of SII. Higher levels of nonverbal shame behaviors predicted a higher likelihood of subsequent SII, and shorter time to SII, after controlling for past SII as well as other emotions associated with SII. Self-reported state shame and assessor ratings of shame were associated with prospective SII, but not after controlling for other emotions. These findings underscore the important role of shame in SII, particularly shame in the presence of contextual prompts for events that surround episodes of SII.

Borderline personality disorder (BPD) is a major mental disorder characterized by instability in interpersonal relationships, affect, self-identity, behavior, and cognition (American Psychiatric Association, 1994). The prevalence of BPD may be as high as 5.9% (99% CI = 5.4–6.4), according to a recent national epidemiologic survey (Grant, Chou, Goldstein, & et al, 2008). Previous estimates have been lower, ranging from .2% to 1.8% in the general population (Torgersen, Kringlen, & Cramer, 2001). Because of the population rate and the seriousness of the disorder, individuals with BPD utilize a disproportionately large percentage of mental health services (Bender et al., 2001; Zanarini, Frankenburg, Khera, & Bleichmar, 2001).

BPD is associated with a particularly high risk for self-inflicted injury (SII), both suicide attempts and nonsuicidal self-injury. Up to 10% of individuals with BPD die by suicide (Paris, Brown, & Nowlis, 1987; Pompili, Girardi, Ruberto, & Tatarelli, 2005; Stone, Stone, & Hurt, 1987) and approximately 75% have attempted suicide (Frances, Fyer, & Clarkin, 1986; Shearer, Peters, Quaytman, & Wadman, 1988; Stone, Hurt, & Stone, 1987). In recent psychological autopsy studies, 25–33% of completed suicides have been reported to meet criteria for BPD (Runeson & Beskow, 1991; Schneider et al., 2006). As many as 69–75% of patients with BPD have engaged in SII at least once (Clarkin, Widiger, Frances, Hurt, & Gilmore, 1983; Grove & Tellegen, 1991; Stone, 1993). Thus, there is an urgent need to clarify the factors that maintain these behaviors among persons with BPD.

Despite diverging theoretical perspectives regarding the core features of BPD, a common thread across theories is that SII is related to severe emotion dysregulation in BPD (Conklin & Westen, 2005; Linehan, 1993; Linehan, Bohus, & Lynch, 2006; Putnam & Silk, 2005). Linehan's (1993) biosocial theory of BPD emphasizes the importance of self-invalidation and shame in the development and maintenance of self-inflicted injury (SII). Similar to others (Baumeister, 1990; Chapman, Gratz, & Brown, 2006; Maris, 1981; Shneidman, 1993), the biosocial model of BPD poses that SII functions to escape and/or avoid aversive emotions.

Although Linehan has suggested that BPD is characterized by dysregulation across a range of both positive and negative emotions (Linehan, Bohus, et al., 2006), it has been argued that shame is the emotion in BPD most strongly linked with chronic suicidality, nonsuicidal self-injury (NSSI), anger, and impulsivity (Linehan,

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1993; Lester, 1998; Stiglmayr et al., 2005). Shame is a highly aversive self-conscious emotion, similar to self-contempt, involving a global belief that one is socially unacceptable or immoral (Crowe, 2004; Lewis, 1971; Tangney & Dearing, 2002), sometimes referred to as internal shame (Gilbert, 1998). When individuals experience shame they also frequently believe that others view them in a similar negative manner, sometimes referred to as "external shame", which is associated with tendencies to hide aspects of the self or behaviors that could lead to being rejected by others (Gilbert, 1998). In contrast, guilt is emotional distress associated with a focus on one's particular misdeeds and action tendencies to fix the problem behaviors and to repair damaged relationships.

A variety of verbal and nonverbal behaviors occur during and following shame (Tracey, Robins, & Tangney, 2007). For instance, for some individuals, action tendencies that accompany shame include hiding (to prevent further social rejection) and acting submissive (to appease others). For others, displays of anger toward other people occurs to alleviate suffering by redirecting attention from the self toward others (Keltner & Harker, 1998).

There are several reasons to hypothesize that shame is a specific emotional precursor of both suicidal behaviors and NSSI among persons with BPD. A recent study found that women with BPD demonstrated higher levels of shame-proneness on both explicit self-report measures and implicit association measures of shame, compared with non-psychiatric controls and controls with social phobia (Rüsch, Lieb, et al., 2007). Another study found that women with BPD and PTSD did not show greater shame-proneness (on both implicit and explicit shame measures) compared with women with BPD who did not have PTSD (Rüsch, Corrigan, et al., 2007). Therefore, there is evidence that heightened shame-proneness is more specific to BPD than other disorders, and is not related to trauma symptoms per se. Further, some researchers have even conceptualized BPD as a chronic shame response – the intense feeling that one will never be good enough (Crowe, 2004).

Several empirical studies have specifically examined the relationship of shame-related constructs with suicide ideation and behavior. Two studies found that current and future suicide ideation is associated with shame (Hastings, Northman, & Tangney, 2000; Lester, 1998) and negative self-concept (Kaplan & Pokorny, 1976). Negative self-concept predicted, independently of depression, both suicide attempts (Lewinsohn, Rohde, & Seeley, 1994) and suicide (Beck & Stewart, 1989). One longitudinal study found that shame-proneness in the 5th grade predicted later suicide attempts by young adulthood (Tangney & Dearing, 2002). Three studies showed that a substantial proportion of overdoses occurred in the presence of shame-related thoughts and emotions: 45% of overdoses were reported to occur when participants were feeling lonely or unwanted (e.g., sadness and shame), 45% occurred when participants were feeling like a "failure" (e.g., shame) (Bancroft, Skrimshire, & Simkins, 1976; Birtchnell & Alarcon, 1971; Hawton, Cole, O'Grady, & Osborn, 1982). Baumeister (1990) suggested that suicide may be sought as a complete and permanent way to escape from painful self-awareness and hide from the shameful scrutiny of others, especially when individuals feel hopeless about changing their shameful qualities (cf. Rizvi & Linehan, 2005).

Theories regarding shame also suggest that this emotion may be specifically associated with NSSI. One important function of shame is to restore important relationships and community bonds by motivating the individual to acknowledge wrongdoing and accept punishment (Keltner & Harker, 1998). When the global self-evaluations of being bad or immoral become extreme, the self-hatred can lead to self-punishment. SII is often an extreme act of self-punishment among persons with BPD (Brown, Comtois, & Linehan, 2002). Indeed, self-punishment is a strategy they may distinguish individuals with BPD from persons with other clinical disorders such as depression (e.g., Rosenthal, Cukrowicz, Cheavens, & Lynch, 2006), and is a common motive for engaging in NSSI among persons with BPD (Brown et al., 2002; Kleindienst et al., 2008). Typical triggers for shame, such as rejection and failure, also trigger a majority of nonsuicidal SII acts (Herpertz, 1995). Furthermore, shame can interfere with changing dysfunctional behaviors such as SII. People with BPD frequently report shame both about things that trigger their SII and about their own SII actions (Kleindienst et al., 2008). A common action tendency associated with shame involves hiding or concealing the personal characteristics (e.g., sexual orientation), past experiences (e.g., childhood sexual abuse), or behaviors (e.g., SII) that the person believes are socially unacceptable. As a result, people who feel shame in relation to their SII may be especially likely to continue SII, because concealment of the problems from other people interferes with getting help. Although other emotions are likely associated with SII, the link between shame and SII may be especially strong since shame is most associated with self-hatred and hiding problems in therapy.

Several key limitations have characterized the research on emotions and SII. First, studies have often relied on self-report measures of emotions. Given that the emotion system is complex and includes many different components (Gross, 1998), there is a need to assess emotions using a multi-method approach. Furthermore, these studies are often primarily based on questionnaires that ask about general levels of emotions without contextual prompts related to SII. As emotional experiences frequently fluctuate in response to a variety of internal and external stimuli, time of day, and other factors, these context-free ratings of emotional state are less likely to capture the types of emotional experiences directly related to SII. It is likely that measures of emotional states in the presence of contextual prompts related to SII will be more effective predictors of SII than measures of general levels of emotion. Third, few studies have examined emotional states as prospective predictors of SII. Studies have examined emotion or personality variables in relation to past history of SII among persons with BPD (e.g., Dulit, Fyer, Leon, Brodsky, & Frances, 1994), but factors related to past history of SII do not necessarily predict the future occurrence of these behaviors. To our knowledge, no published study has examined the association of shame with future suicidal or nonsuicidal SII in BPD.

Our primary objective in the present study was to examine the prospective association of shame with the occurrence of future SII. We addressed the limitations of prior studies in several ways. We examined shame as a prospective predictor of SII among persons with BPD over a 12-month period, using a multi-method approach. We measured shame as well as other emotional states in three different ways: self-report of emotions, facial coding of emotional expressions, and observer ratings of state emotions. Furthermore, we measured these emotional states while participants discussed the events that triggered their recent episodes of SII, allowing us to examine emotional states that occur in the presence of relevant contextual prompts.

We hypothesized that women with BPD who evidence higher levels of shame while discussing the triggering events for their own previous SII will be likely to more quickly repeat SII in the future. Further, we hypothesized that shame would be specifically and uniquely associated with prospective SII beyond the influence of other negative emotions. To test this hypothesis, we controlled for other emotions that also showed a positive association to SII in order to test if the observed correlations can be explained by unique aspects of shame rather than general negative emotionality. Finally, supplemental exploratory analyses examined whether shame or other emotions predicted the level of suicide intent (intent to produce death as a result of SII) associated with episodes of SII.