Humor styles moderate borderline personality traits and suicide ideation

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ABSTRACT

The way individuals use humor to interact interpersonally has been associated with general personality, depression, and suicidality. Certain humor styles may moderate the risk for suicide ideation (SI) in individuals who are high in specific risk factors (e.g., thwarted belongingness, perceived burdensomeness). Previous research suggests a relationship between humor styles and borderline personality disorder (BPD) and an increased risk of suicidality and suicide completion in individuals with BPD. Participants (n =176) completed measures of BPD traits, SI, and humor styles. It was hypothesized that BPD traits would be positively correlated with negative humor styles and negatively correlated with positive humor styles, and that humor styles would significantly moderate BPD traits and SI. Results showed that BPD traits were negatively correlated with self-enhancing humor styles and positively correlated with self-defeating humor styles, but that they were not significantly correlated with affiliative or aggressive humor styles. Bootstrapping analyses demonstrated that the affiliative, self-enhancing, and self-defeating humor styles significantly moderated BPD traits and SI, while the aggressive humor style did not.

1. Introduction

Recent research demonstrates that the way an individual uses humor may play an important role in psychological adjustment. At present, most research has focused on four humor styles (HS's) that were derived through factor analyses (Martin et al., 2003). Over a decade of empirical investigation has illustrated the effects of two positive HS's (self-enhancing and affiliative) and two negative HS's (self-defeating and aggressive). Affiliative humor helps to create and maintain interpersonal connections, which incorporates entertaining others through humor to facilitate strong social bonds, whereas self-enhancing involves using humor to cope with stressful, distressing events by maintaining a positive outlook on life. Individuals who endorse aggressive HS's use demeaning humor in an effort to reinforce oneself to the detriment of others. Finally, self-defeating is the use of self-disparaging humor regarding one's perceived weaknesses and flaws, and is often used in an effort to facilitate social bonding. It is important to note that HS's are similar to, but not synonymous with, one's sense of humor. Rather, they are intrapsychic and interpersonal constructs which often manifest themselves in interpersonal situations or in ways that protect the self (Martin et al., 2003).

1.1. Humor styles and psychological well-being

A growing body of research has demonstrated that the HS's are differentially linked to mental health symptoms and indicators of psychological adjustment. For example, affiliative and self-enhancing humor are negatively related to important aspects of psychological disturbances, such as levels of stress, loneliness, shyness, symptoms of Major Depressive Disorder (MDD), Generalized Anxiety Disorder (GAD), interpersonal predictors of suicide, and suicide ideation (SI; Cann et al., 2010; Fitts et al., 2009; Martin et al., 2003; Tucker et al., 2013a, 2013b). However, these two positive HS's are also associated with increased life satisfaction and happiness (Dyck and Holtzman, 2013; Ford et al., 2014). Increased use of aggressive humor has been linked to greater levels of hostile aggression and engagement in risky behaviors and decreased social competence and relationship satisfaction (Cann and Cann, 2013; Martin and Dutrizac, 2004; Yip and Martin, 2006). The use of self-defeating humor may be particularly maladaptive as it has been related to increased symptoms of GAD, MDD, feelings of loneliness, and suicidal ideation (SI; Martin et al., 2003; Martin and Dutrizac, 2004; Tucker et al., 2014). Conversely, other research has suggested that HS's predict only slightly more than personality factors with respect to one's psychological well-being (Ruch and Heintz, 2014).

1.2. Humor styles and personality

HS's are related to general personality (Martin et al., 2003; Vernon et al., 2008) using the five-factor model of personality (FFM; Costa and McCrae, 1992). The FFM includes the domains of neuroticism, extraversion, openness, agreeableness, and conscientiousness. Replicating the initial findings of Martin et al. (2003), Vernon et al. (2008) found affiliative and self-enhancing humor to be positively correlated with extraversion and openness, while the aggressive and self-defeating HS's were positively correlated with neuroticism, and negatively with conscientiousness. Many of these relationships were found across multiple studies, as reported in a recent meta-analysis also found that agreeableness was negatively associated with aggressive humor and positively associated with affiliative humor (Mendiburo-Seguel et al., 2015).

The established relationships between the FFM domains and HS's are important for understanding the impact of humor on personality pathology. A growing body of evidence suggests that all 10 DSM-5 personality disorders (PDs) can be understood as maladaptive variants of FFM traits (Lynam and Widiger, 2001; Samuel and Widiger, 2008). Maladaptive personality traits also form the foundation for PDs in the DSM-5 alternative model (DSM-AM; Section III Emerging Models and Measures; APA, 2013). The DSM-AM traits are variants of general FFM personality traits (APA, 2013). Therefore, incorporating the FFM into HS research is a timely and relevant endeavor.

Among categorical expressions of maladaptive personality, borderline personality disorder (BPD) is among the most debilitating of PD diagnoses. Symptoms include impulsive or risky behaviors, distorted cognitions pertaining to one's perception of self, deficits in emotion regulation, and SI. This combination of symptoms may help explain why persons with BPD are 50 times more likely than the general population to successfully complete suicide (Soloff et al., 2000). While BPD is conceptualized in DSM-5 as a categorical construct, a number of studies have illustrated that BPD is best understood from a dimensional perspective (Edens et al., 2008; Rothschild et al., 2003; Trull et al., 1990). Mullins-Sweatt et al. (2012) developed the Five-Factor Borderline Inventory (FFBI) based on the evidence that BPD can be conceptualized by the FFM of personality. One previous study involving HS's among individuals with BPD traits examined the phenotypic relationship between HS's and BPD traits in monozygotic and dizygotic twin pairs, finding that these associations were best explained by common family and environmental factors (Schermer et al., 2015).

1.3. The current study

Research indicates that HS's are associated with numerous clinically significant factors like depression (Frewen et al., 2008; Martin et al., 2003; Olson et al., 2005), adaptive personality (e.g., Greven et al., 2008; Vernon et al., 2008), and maladaptive personality traits (Martin et al., 2012; Schermer et al., 2015; Veselka et al., 2010). Additionally, despite evidence supporting the relationship between SI and HS's, such that HS's moderate the relationship between other factors (e.g., thwarted belongingness) and SI (Tucker et al., 2013b), no research has explicitly examined the role of HS's in BPD and SI. Therefore, an exploration of this relationship may be useful. As such, the current study sought to examine the moderating relationship of HS's on BPD traits and SI. The first hypothesis is that negative HS's (self-defeating and aggressive) will be positively correlated with BPD traits (i.e., each of the subscales and the total score of the FFBI), and that positive HS's (affiliative and self-enhancing) will be negatively correlated with BPD traits. The second hypothesis is that each of the HS's will significantly moderate the relationship between BPD traits and SI, such that positive HS's will be associated with lower SI, and negative HS's will be associated with higher SI.

2. Method

2.1. Participants

Participants (*n* =232) at a Midwestern university were recruited from undergraduate psychology courses and were oversampled for BPD traits using a prescreener (McLean Screening Instrument for BPD; MSI-BPD; Zanarini et al., 2003). All measures were completed remotely online, including informed consent and debriefing procedures. Participants were compensated with course credit. Invalid responders were identified by participants with > 20% missing data (*n* =38), scores ≥3 on the EPA Virtue scale (*n* =19) and ≥4 on the EPA Infrequency scale (*n* =0; Lynam et al., 2011), and outliers whose z-scores were greater than 3.29 (*n* =1). Two participants met criteria for both missing data and poor validity. All invalid responders (*n* =56) were removed from final analyses (final sample *n* =176). Participant ages ranged from 18 to 53 (*M* =20.02, *SD* =4.46), and the majority were Caucasian (75.6%) or multi-racial (9.7%). The remaining participants were African-American (6.3%), Native American/Alaskan Native (3.4%), Hispanic (2.8%), and Asian (1.1%). Within the sample, 72.2% identified as female and 27.3% identified as male. A minority of participants expressed SI (21%; i.e., ≥1 on the suicidality subscale of the HDSQ; Metalsky and Joiner, 1997). Eighty-four participants endorsed clinically significant symptoms of BPD (i.e., MSI-BPD ≥5). It should be noted that while the MSI-BPD was not included in any statistical analyses, an MSI-BPD score of 5 or more was utilized as a recruitment cut-point to increase the likelihood that participants with subthreshold or threshold BPD symptoms might participate (a cutoff of 7 has been identified with good sensitivity and specificity for diagnostic BPD; Zanarini et al., 2003).

2.2. Measures

The Five Factor Borderline Inventory (FFBI; Mullins-Sweatt et al., 2012) is a 120-item self-report measure used to assess BPD traits. Items are rated on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The FFBI consists of 12 subscales, each comprised of 10 items. The subscales measure different maladaptive expressions of FFM neuroticism (affective dysregulation, α=0.89; anxious uncertainty, α=0.90; behavioral dysregulation, α=0.83; despondence, α=0.88; dysregulated anger, α=0.88; fragility, α=0.82; and self-disturbance, α=0.90), agreeableness (distrustfulness, α=0.84; manipulativeness, α=0.80; and oppositional, α=0.75), conscientiousness (rashness, α=0.83), and openness to experience (dissociative tendencies, α=0.81). Internal consistency for the subscales ranged from acceptable to excellent (total score, α=0.98).

The Hopelessness Depression Symptom Questionnaire–Suicidality Subscale (HDSQ-SS; Metalsky and Joiner, 1997) is a 4-item self-report measure that assesses the intensity of SI. Questions are answered on a 4-point Likert scale ranging from 0 (e.g., "*I do not have thoughts of killing myself.*") to 3 ("*I always have thoughts of killing myself.*"). Higher scores on the HDSQ-SS infer increased SI severity and plans for suicide. The HDSQ-SS had excellent internal consistency (α=0.92).

The Humor Styles Questionnaire (HSQ; Martin et al., 2003) is a 32-item self-report measure that assesses four domains of HS: two positive (affiliative and self-enhancing) and two negative (aggressive and self-defeating). Each of the four HS's is comprised of 8 items that are rated on a 7-point Likert scale from 1 (*totally disagree*) to 7 (*totally agree*). Internal consistency coefficients of the affiliative (α=0.84) and self-enhancing (α=0.83) subscales were good, while the self-defeating subscale was acceptable (α=0.78) and the aggressive subscale was questionable (α=0.61).

3. Results

3.1. Relationships between humor styles and BPD traits

Table 1 provides the descriptive statistics for the scales of all