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Mental disorders and thwarted belongingness, perceived burdensomeness, and acquired capability for suicide

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ABSTRACT

Nearly all mental disorders increase suicide risk; however, some better predict ideation versus attempts. The interpersonal theory of suicide provides a framework to understand these relationships, via the constructs of thwarted belongingness, perceived burdensomeness, and acquired capability. The current study examined the relationships between various mental disorders and theory constructs among 997 adult outpatients, controlling for sex and age. Disorders generally symptomatically associated with social withdrawal or potential liability to others (i.e., depressive and bipolar disorders, social phobia, borderline personality disorder, schizophrenia and other psychotic disorders, certain drug dependence) were uniquely positively associated with thwarted belongingness and perceived burdensomeness. Disorders associated with potential exposure to painful and provocative events (i.e., posttraumatic stress disorder, schizophrenia and other psychotic disorders, certain drug use) were associated with increased acquired capability. Notably, alcohol use disorders, attention-deficit/hyperactivity disorder subtypes, and panic/agoraphobia were negatively associated with thwarted belongingness or perceived burdensomeness; avoidant personality disorder, and certain anxiety disorders and drug use disorders, were associated with decreased acquired capability. Importantly, disorders associated with both thwarted belongingness and perceived burdensomeness may place individuals at greatest risk for suicide if acquired capability develops. Implications for comorbidity and suicide risk assessment and treatment are discussed.

1. Introduction

Suicidal thoughts and behaviors affect millions of individuals worldwide (World Health Organization, 2001), and mental disorders are one of the most robust predictors. Problematically, nearly all mental disorders increase risk for suicide (Bolton and Robinson, 2010; Borges et al., 2008; Harris and Barraclough, 1997; Kessler et al., 1999; Nock et al., 2008; Nock et al., 2009; Nock et al., 2010) and the unique contribution of any disorder or comorbid presentations remains unclear. Growing evidence indicates that mood disorders predict the onset of suicidal ideation more strongly than plans or attempts among ideators (Bolton and Robinson, 2010; Nock et al., 2009). Plans and attempts among ideators are better predicted by anxiety, impulse-control, and substance use disorders across developed and developing countries (Nock et al., 2008, 2009, 2010). Factors accounting for the differential effects on ideation versus behavior are not well understood.

Some evidence indicates that some disorders may carry risk for attempts simply because of their comorbid presentations with other disorders that independently confer risk (Nock et al., 2010). Alternatively, a factor common to all disorders (e.g., distress/impairment) could result in increased suicide risk across disorders (Nock et al., 2010). However, the latter perspective does not explain why certain mental disorders are more predictive of ideation whereas others are more predictive of suicidal behavior, given that all mental disorders confer distress/impairment. The interpersonal theory of suicide (Joiner, 2005; Van Orden et al., 2010) provides a framework to understand the universal but distinct relationships of mental disorders with suicide risk.

1.1. The interpersonal theory of suicide

The interpersonal theory of suicide (Joiner, 2005; Van Orden et al., 2010) suggests that dying by suicide requires both the desire for death and the capability for suicide. Suicidal desire, according to the theory, emerges when two interpersonal states – perceived burdensomeness (i.e., one's death is worth more than one's life to others) and thwarted belongingness (i.e., sense of alienation and disconnection) – are perceived as hopeless and experienced simultaneously. Because lethal suicidal behavior is often frightening and physically demanding, the theory further argues that individuals must also develop a sense of fearlessness about pain, injury and death as well as an elevated tolerance for physical pain in

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order to be capable of suicide. Evidence has largely supported the main tenets of the theory [see Van Orden et al. (2010) for comprehensive review].

1.2. Mental disorders and the interpersonal theory of suicide

The interpersonal theory of suicide can further refine our understanding of the link between mental disorders and suicide. According to the theory, disorders associated with social isolation or conflict [e.g., depressive disorders, social phobia, borderline personality disorder (BPD)] or being a liability to others (e.g., bipolar disorders, schizophrenia) should be most predictive of thwarted belongingness or perceived burdensomeness, and thus, more strongly associated with suicidal ideation. For example, social anxiety has been associated with increased thwarted belongingness (but not burdensomeness), whereas depressive symptom severity was associated with both thwarted belongingness and perceived burdensomeness (Davidson et al., 2011).

Disorders associated with exposure to painful or fearsome experiences [e.g., posttraumatic stress disorder (PTSD), antisocial personality disorder (ASPD)] may be associated with the capability for suicide, and thus, more predictive of suicidal behaviors (e.g., attempts). Conversely, disorders such as narcissistic personality disorder would not be expected to be associated with perceived burdensomeness given lack of empathy for others, and anxiety disorders that result in avoidance of risk and painful and provocative experiences [e.g., generalized anxiety disorder (GAD) is associated with fewer suicide attempts; Borges et al., 2010] would not be expected to be associated with acquired capability. This perspective is consistent with mood disorders being more predictive of ideation and other disorders of behavior (Nock et al., 2008, 2009, 2010).

Understanding which mental disorders are uniquely associated with thwarted belongingness, perceived burdensomeness, and capability could improve suicide risk assessment and point toward modifiable targets for decreasing suicide risk among certain disorders. Regularly assessing proximal risk factors for suicide such as thwarted belongingness, perceived burdensomeness, and acquired capability may benefit suicide risk assessments across all patients. However, knowing which disorders are associated with these factors can provide insight into which risk factors may require frequent assessment and attention as a therapeutic target in treatment.

1.3. Present study

In the present study, the unique effects of mental disorders on thwarted belongingness, perceived burdensomeness, and acquired capability were examined in a large sample of clinical outpatients, controlling for age and sex. Consistent with the interpersonal theory and as discussed above, we hypothesize that, of the mental disorders most commonly associated with suicidality (Bertolote and Fleischmann, 2002; Borges et al., 2010; Nock et al., 2010; Suokas et al., 2014), depression, bipolar disorders, alcohol/substance abuse and dependence, and schizophrenia and other psychotic disorders would be positively associated with thwarted belongingness and perceived burdensomeness. Based on previous research (Davidson et al., 2011), we expected Social Phobia to be associated with thwarted belongingness but not perceived burdensomeness. We also expected PTSD, panic disorder, and eating disorders (including bulimia nervosa and anorexia nervosa) to be positively associated with acquired capability, and GAD to be negatively associated. We hypothesized that BPD would be positively associated with all three constructs. Due to a lack of information regarding other disorders and suicide risk (e.g., somatoform disorders), some associations are exploratory and should be used to formulate hypotheses for future research. This study is the first to explore the relationship of mental disorders to the constructs of the interpersonal theory of suicide, serving as an initial step in understanding the differential relationship between certain mental disorders with suicidal thoughts and behaviors.

2. Methods

2.1. Participants and setting

The sample included 997 adult outpatients seeking services at a university-affiliated community-based psychology clinic located in the southeastern United States. Individuals are only referred elsewhere if they are suffering from psychotic or bipolar spectrum disorders that are not stabilized on medications or deemed to be an immediate danger to themselves or others. Given these minimal exclusionary criteria, a wide range of clinical presentations and severity of symptoms exists.

The mean age of the sample was 27.17 years (S.D.=10.12; range: 18–65) and over half (56.2%) were female (43.3% male). Close to 75.7% endorsed being single, 10.4% married, 1.8% separated, 1.0% widowed, and 10.5% divorced. Approximately 71.6% identified as White Non-Hispanic, 10.9% Black, 10.2% Hispanic, 2.3% Asian/Pacific Islander, and 1.7% Native American. Most outpatients reported some college (58.0%) as highest level of education attained and were university students (55.6% undergraduates and 11.0% graduate students).

2.2. Materials and procedures

Study procedures were conducted in accordance with the latest version of the Declaration of Helsinki and was reviewed and approved by the Florida State University institutional review board. Informed consent of participants was obtained after procedures had been fully explained. Patients completed all measures at initial screening.

2.2.1. Interpersonal Needs Questionnaire (INQ; Van Orden et al., 2012)

The INQ consists of two independent subscales assessing thwarted belongingness (lack of meaningful relationships; 6 items) and perceived burdensomeness (burden to others; 9 items). The INQ has demonstrated strong psychometric properties in previous research (Van Orden et al., 2012). Each subscale used in the present study demonstrated evidence of strong internal consistency (INQ-Thwarted Belongingness: α=0.91; INQ-Perceived Burdensomeness: α=0.90).

2.2.2. Acquired Capability for Suicide Scale (ACSS; Van Orden et al., 2008)

The ACSS is designed to assess the degree to which an individual reports habituation to both the fear of death and physiological pain. Past research supports the construct validity and internal consistency of both the full and short versions of the ACSS (e.g., Van Orden et al., 2008; Bender et al., 2011). In the present sample, internal consistency was adequate for the 5-item ACSS (α=0.65).

2.2.3. Psychiatric diagnoses

Diagnoses were assessed by therapists in a clinical psychology doctoral program using the Structured Clinical Interview for DSM-IV – Patient Edition (SCID – I/P; First et al., 1995) and Axis II Personality Disorders (SCID-II; First et al., 1997) during patients' initial intake appointment. Diagnoses were assigned in collaboration with licensed supervisors following extensive review of results from diagnostic interviews as well as self-report measures. Previous research on the SCID – I/P has found that trainees achieved excellent agreement on SCID symptoms (k=0.85) and very good diagnostic accuracy (82%) compared to expert consensus diagnosis, and that both neophyte and experienced trainees achieved excellent interrater reliability (Ventura et al., 1998).

3. Results

Diagnostic codes from the *Diagnostic and Statistical Manual of Mental Disorders (DSM) IV – Text Revision* were used to identify patient Axis I and II diagnoses at intake. Diagnoses were coded as present (versus not) if they were anywhere on Axis I[1] or II[2]. In remission diagnostic codes were excluded. See Table 1 for all prevalence rates.

[1] No participants were diagnosed with factitious, dissociative, or delirium, dementia, and amnestic or other cognitive disorders. Disorders usually first diagnosed in infancy, childhood, or adolescence (aside from ADHD), or due to a general medical condition/substance-induced were not included in these analyses.

[2] No participants were diagnosed with Schizoid Personality Disorder. Intellectual disabilities coded on Axis II were not included in these analyses.