Distress Mediates the Association Between Personality Predispositions and Suicidality: A Preliminary Study in a Portuguese Community Sample

Rui C. Campos, Avi Besser, and Sidney J. Blatt

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Q1: Au: Blatt, 1990 not in References; should this be Zuroff, Quinlan, & Blatt?
Q2: Au: Please clarify Besser & Priel 2005a or b.
Q3: Au: Are these words meant to be written with Capital letters.
Q5: Au: Zuroff 1990 not cited in text. Please cite or delete here.

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   Rui C. Campos, Avi Besser, and Sidney J. Blatt
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The present study examined whether distress mediates the relationship between suicidality and the personality predispositions of Self-Criticism, Dependency/ Neediness, and Efficacy. A community sample of Portuguese young adults (N = 105) completed, in a counterbalanced order, a sociodemographic questionnaire, the Depressive Experiences Questionnaire (DEQ), the Brief Symptom Inventory (BSI), and reports of any suicide attempts and/or ideation. Structural equation modeling indicated that Self-Criticism is significantly associated with suicidality, but Dependency and Efficacy are not. High levels of Self-Criticism and of Dependency and low levels of Efficacy are associated with distress. Distress mediates the association between Self-Criticism and suicidality; whereas Dependency and Efficacy are indirectly associated with suicidality through their associations with distress. Self-Critical and Dependent individuals are at greater risk for suicide because of their vulnerability to distressful events; whereas certain levels of Efficacy may decrease vulnerability to distress and suicide risk.

Keywords: dependency, distress, efficacy, self-criticism, suicidality

INTRODUCTION

Suicide is a major mental health issue in clinical and non-clinical populations across the life span, but particularly during adolescence and advanced aging. There are a variety of theoretical models for suicide and suicidal behavior that include sociocultural, psychological, psychoanalytic, and moral perspectives (see Goldney & Schioldann, 2004), demonstrating the potential interplay among risk factors and protective factors, individual and psychosocial factors, societal levels and life stages (e.g., Beutrais, Collings, Ehrhardt et al., 2005). Temperament, personality traits, psychological vulnerabilities, and cognitive and coping styles may act as predisposing factors.
factors for suicidal behavior by predisposing the individual to react to stressful situations in negative ways.

Substantial clinical (e.g., Blatt, 1974, 1995) and empirical (e.g., Beck, 1983; Blatt, Quinlan, Chevron et al., 1982) evidence indicates that the personality dimension referred to as Self-Critical Perfectionism plays a major role in suicide, especially in adolescents and young adults. This study examines a possible mechanism through which Self-Criticism, as compared to several other personality dimensions, may play a role in suicidal thought and action.

The research linking self-criticism to suicidality has been grounded within the broader context of perfectionism, a higher-order factor defined as “overly critical evaluation of one’s own behavior, an inability to derive satisfaction from successful performance, and chronic concerns about others’ criticism and performance” (Dunkley, Blankstein, Masheb et al., 2006).

Indeed, some have suggested that Self-Criticism, defined as excessive self-evaluative concerns coupled with high standards and the need for recognition (Blatt, 1995), is a key component of the perfectionism–distress relationship. However, to date, few studies have investigated potential mechanisms linking Self-Criticism to suicidal risk (e.g., O’Connor & Noyce, 2008). Therefore, a central aim of the present study was to investigate one potential mechanism for this relationship, namely, an association mediated by emotional/psychological distress.

The personality dimension of Self-Critical Perfectionism is part of a broader conceptualization of personality development and psychopathology articulated by Sidney Blatt (e.g., 2008), which defines particular vulnerabilities to distressful events. In this model, personality development is a consequence of the synergistic interaction of the development of self-definition and interpersonal relatedness, from infancy to senescence. Self-definition refers to the development of a positive and integrated sense of identity. Interpersonal relatedness refers to the development of the capacity to establish and maintain mature, reciprocal, and satisfying interpersonal relationships. Coordinated development of interpersonal relatedness and self-definition is the hallmark of optimal development and is assumed to reduce stress and lead to psychological and physical well-being (Blatt & Zuroff, 1992).

Differences in the relative emphasis on processes of relatedness and self-definition delineate two fundamental personality styles, each with preferred modes of cognition and preferred coping strategies (Besser & Priel, 2003a; Blatt, 1991, 2008; Blatt, Quinlan, Chevron et al., 1982). However, disruption of the complex, synergistic developmental process of interpersonal relatedness and self-definition at different points in development can result in various forms of psychopathology (Blatt, 2008).

Various fundamental forms of psychopathology can be classified into two fundamental configurations (Blatt, 2008; Blatt & Shichman, 1983). The anaclitic configuration of psychopathology, which is concerned primarily with issues of interpersonal relatedness, includes the borderline and dependent personality disorders, anaclitic depression, and histrionic personality disorder. The introjective configuration of psychopathology, which is primarily concerned with issues of self-definition, includes paranoid, obsessive-compulsive, depressive (guilt-laden), and narcissistic personality disorders (Blatt, 1990, 2008). These two configurations of psychopathology are dynamic and interactive. Thus, particular individuals can present characteristics of several disorders within a particular configuration. For example, an individual whose problems may be classified in the introjective configuration might present paranoid, obsessive, and depressive features (Blatt, 2008).
The dimensions of Dependency and Self-Criticism are personality characteristics associated with the anaclitic and introjective personality configurations, respectively, and they have been empirically validated as central personality characteristics that can be assessed using several well-established instruments, such as the Depressive Experiences Questionnaire (DEQ; Blatt, D’Afflitti, & Quinlan, 1976). The DEQ assesses subjective experiences associated with depression. Factor-analysis studies of a wide range of individuals in a variety of different cultures have confirmed that the DEQ assesses three factors. The first factor, Dependency, includes concerns about abandonment, helplessness, and loneliness, as well as the need for close and dependent interpersonal relationships. The second DEQ factor, Self-Criticism, assesses preoccupation with issues of failure, ambivalent feelings about the self and others, and intense self-criticism (Blatt, D’Afflitti, & Quinlan, 1976). The third factor, Efficacy, assesses inner capabilities and resources, inner strength, being capable of assuming responsibilities, and feeling independent, proud, and satisfied with one’s accomplishments. High scores for the Efficacy factor are associated with feelings of personal accomplishment and having a goal orientation without being excessively competitive (for reviews, see Besser & Priel, 2005; Blatt, 2008; Corveleyn, Luyten, & Blatt, 2005).

Considerable empirical and clinical research has demonstrated that high levels of one of the first two DEQ factors, Self-Criticism or Dependency, indicate vulnerability to distress or neuroticism (e.g., Bagby & Rector, 1998), as well as depression (e.g., Besser & Priel, 2003a, b, 2005a, b; Campos, Besser, & Blatt, 2010; Klein, 1989; see reviews in Besser, Vliegen, Luyten et al., 2008, Blatt, 2008, and in Corveleyn, Luyten, & Blatt, 2005), anxiety (e.g., Mongrain & Zuroff, 1995) and hostility (e.g., Blatt & Zuroff, 1992; Mongrian, Vettese, Shuster et al., 1998).

As noted earlier, Self-Critical Perfectionism has been associated with suicide (e.g., Blatt, 1995) in both clinical and empirical research. Consistent with these observations, recent findings indicate that the DEQ Self-Criticism factor predicts suicidal risk (see Morrison & O’Connor, 2007; O’Connor, 2007). There is also considerable empirical evidence linking distress, namely depression, anxiety, hostility, and self-consciousness, with suicidality (e.g., Goldblatt, 2008; Lamis, Malone, Langhinrichsen-Rohling et al., 2010; Nepon, Belik, Bolton et al., 2010; Youssef, Plancherel, Laget et al., 2004).

The relationship between the Self-Critical dimension of depression and suicide risk is stronger than the relationship between the Dependent dimension of depression and suicide risk (Blatt, Quinlan, Chevron et al., 1982; Fazaa & Page, 2003). Fazza and Page (2003) found that Self-Critical undergraduates who attempted suicide showed greater intent to die and greater lethality than Dependent undergraduates who had attempted suicide. Self-Critical undergraduates were also more likely to attempt suicide in response to an intrapsychic stressor, with the explicit motivation of escape. In a study conducted in a sample population of adults, O’Connor and Noyce (2008) concluded that brooding rumination fully mediated the relationship between Self-Criticism and suicide ideation. However, these researchers did not examine the effects of Dependency or Efficacy.

Subsequent research on Dependency and Self-Criticism as vulnerability factors has also revealed a difference between the positive or adaptive (mature) and negative or maladaptive (immature) aspects of these two personality dimensions. Analyses of the Dependency factor of the DEQ led to the differentiation of two sub-scales (Blatt, Zohar, Quinlan et al., 1996; Blatt, Zohar, Quinlan et al., 1995; Rude & Burnham, 1995), Neediness and Connectedness.
Neediness is defined as a preoccupation with abandonment and separation, feelings of being unloved, and fear of loss. Connectedness is defined as a mature and more reciprocal type of concern about one's relationship(s) with particular significant others. Recent contributions (e.g., Campos, Besser, & Blatt, 2010, 2011) have demonstrated different intrapsychic correlates for Dependency and Neediness. Blatt and colleagues (Blatt, 2008) view the DEQ Self-Criticism and Efficacy factors as two levels of self-definition. In their model, Self-Criticism represents the more negative and maladaptive expression of self-definition and Efficacy represents the more positive and adaptive expression of the self.

Overview and Predictions

The primary goal of the present study was to extend previous studies by examining the relationship among the personality dimensions of Dependency, Self-Criticism, and Efficacy, as well as Neediness (the maladaptive component of Dependency), and the role of distress in suicidality. We were particularly interested in examining whether distress mediates the associations between these personality predispositions, as assessed by the DEQ, and suicidality.

Extreme psychological distress is a major risk factor for suicidal ideation and suicide attempts (Rosenfeld, Breitbart, Krivo et al., 2000). Psychological distress, such as depression and anxiety, has been shown to make the largest independent contribution to the risk of suicidal behavior in young adults. All suicide attempts, regardless of severity, indicate severe emotional distress, unhappiness, and/or mental illness (e.g., Beautrais, Collings Ehrhardt et al., 2005). We hypothesize that highly Self-Critical individuals are predisposed to experience distress and thus prone to suicidality.

In light of the important role of personality traits, especially Self-Criticism, in vulnerability for distress and suicidality, we assessed the meditational effect of distress (as a latent variable, a composite measure of depression, anxiety, hostility, and interpersonal sensitivity) in an exploration of the relationship between personality dimensions and suicidality. Although Blatt, Quinlan, Chevron et al. (1982), Fazaa and Page (2003), and O'Connor and Noyce (2008) have all studied the relationships between Self-Criticism and Dependency and suicidality, to the best of our knowledge, no study has specifically examined the impact of all three personality dimensions proposed by Blatt (as assessed by the DEQ) on suicidality or the mediating role of distress in these associations. Furthermore, the suicide literature is weighted more toward identifying risk factors and conditions than protective factors and sources of resilience (Beautrais, Collings, Ehrhardt et al., 2005). The present study explores a predisposing protective factor (Efficacy), as well as predisposing personality risk factors (i.e., Dependency and Self-Criticism) and situational risk factors (emotional distress).

We hypothesized that (a) high levels of Self-Criticism will be more strongly associated with suicidality than high levels of Dependency or low levels of Efficacy and that (b) high levels of Self-Criticism and Dependency and low levels of Efficacy will be positively associated with distress. We tested whether distress mediates the association between personality vulnerability factors and suicidality. Consistent with the literature on distress and suicidality, our primary hypothesis is that distress plays a mediating role in the association between Self-Criticism and suicidality. In light of the fact that recent contributions have found important differences between Dependency and the subscale of Neediness within the Dependency factor (Campos, Besser, & Blatt, 2010, 2011), we also examined the
association of Neediness, the maladaptive component of Dependency, with suicidality.

**METHOD**

**Participants and Procedure**

A random convenience community sample of 105 adults living in several Portuguese districts participated in this study. The participants included 51 males and 54 females, ranging in age from 19 to 64 years ($M = 36.3, SD = 11.5$). Their education levels ranged from 6 to 19 years of schooling ($M = 12.1, SD = 3.1$). A minority of the participants, 7.8%, were unemployed. Approximately 41% were married or living with a romantic partner and 58% were neither married nor living with a romantic partner. Participants responded to requests for volunteers to take part in a study concerning personality and mood. We initially contacted 140 individuals, but 28 of these individuals declined to participate due to time constraints (80% of people contacted actually participated in the study). Protocols of 7 of the 112 individuals initially inter-viewed were eliminated due to missing sociodemographic information or an elevated number of missing responses, thus the final sample included 105 participants. All participants were informally contacted by trained research assistants, volunteered to participate and signed an informed-consent form. All protocols were collected in individual sessions by trained research assistants and instructions were presented in writing. Participants were not paid or compensated for their participation. The questionnaires were presented in a counterbalanced format.

**Measures**

*Sociodemographic Questionnaire*. Before the presentation of the two questionnaires assessing distress and personality, a brief questionnaire requesting sociodemographic information was administered. This questionnaire was designed to collect information about gender, age, education, marital status, employment, and district of residence. Participants were also asked how many times they had visited a doctor in the past year, if they had ever used illegal drugs, if they suffered from a chronic illness, if they had ever visited a psychologist or psychiatrist, and if they had ever been diagnosed with a psychiatric disorder. Frequency data and means and their standard deviations for the sociodemographic variables are presented in Table 1. The form also included two questions about suicidality: “Have you ever attempted suicide?” and “Have you ever thought about committing suicide?”

*The Depressive Experiences Questionnaire*. The Depressive Experiences Questionnaire (DEQ; Blatt, D’Afflitti, & Quinlan, 1976) includes 66 items and yields results for two factors associated with depressive experiences (Blatt & Zuroff, 1992), Dependency, and Self-Criticism and a third factor, Efficacy. Individuals with high Efficacy scores are likely to present goal-oriented strivings, but not excessive competition with others. These factors’ validity has been confirmed in numerous other studies in a number of different cultures (see summary in Blatt, 2008). The Portuguese version of the DEQ has adequate psychometric properties (Campos, 2000, 2009). The internal consistency and factor structure are very similar to those obtained by Blatt (Blatt, D’Afflitti, & Quinlan, 1976). In the present study, the Cronbach’s alpha values were .72, .76, and .78, for Dependency, Self-Criticism, and Efficacy, respectively.

*Brief Symptom Inventory*. Distress was measured using the Brief Symptom Inventory (BSI), a 53-item self-report inventory that...
assesses symptoms of distress in a number of different domains/problem areas, using a Likert scale ranging from 0 (not at all) to 4 (extremely). The psychometric properties, reliability, and validity of the BSI for specific symptom subscales scores, as well as for summary scores (i.e., the Global Severity Index) are provided in the manual for this questionnaire (Derogatis, 1994). In light of the specific aims of our investigation, we used four subscales from this measure, the anxiety (ANX), depression (DEP), hostility (HOS), and interpersonal sensitivity (I-S) subscales. The BSI was adapted for the Portuguese population by Canavarro (2007). In Canavarro’s (2007) work, the Cronbach alpha values varied between .62 and .80 for the nine symptom scales in the standardization sample and the scales correlated significantly with expected measures and differentiated patients from non-patients. In the present study, alpha values for the four scales ranged from .73 to .78.

### TABLE 1. Socio-demographic Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>(%)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>36.3</td>
<td>(11.5)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>12.1</td>
<td>(3.1)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>51</td>
<td>48.6</td>
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</tr>
<tr>
<td>Female</td>
<td>54</td>
<td>51.4</td>
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<tr>
<td>Marital status</td>
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<td></td>
</tr>
<tr>
<td>Married or living together</td>
<td>44</td>
<td>41.9</td>
<td></td>
</tr>
<tr>
<td>Not married</td>
<td>61</td>
<td>58.1</td>
<td></td>
</tr>
<tr>
<td>District</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Évora</td>
<td>49</td>
<td>46.7</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>56</td>
<td>53.3</td>
<td></td>
</tr>
<tr>
<td>Being employed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>97</td>
<td>92.2</td>
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</tr>
<tr>
<td>No</td>
<td>8</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>Number of times went to the doctor last year</td>
<td></td>
<td></td>
<td>2.4 (2.5)</td>
</tr>
<tr>
<td>Having a chronic disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>20</td>
<td>19</td>
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</tr>
<tr>
<td>No</td>
<td>85</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>Ever gone to a psychologist or a psychiatrist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>32</td>
<td>30.5</td>
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</tr>
<tr>
<td>No</td>
<td>73</td>
<td>69.5</td>
<td></td>
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<tr>
<td>Psychiatric disease</td>
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<td>4</td>
<td>3.8</td>
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<tr>
<td>No</td>
<td>101</td>
<td>96.2</td>
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<tr>
<td>Use of drugs (ever)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Yes</td>
<td>29</td>
<td>27.6</td>
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</tr>
<tr>
<td>No</td>
<td>76</td>
<td>72.4</td>
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RESULTS

Data Analysis

We examined the normality of the distributions of the variables using the Kolmogorov-Smirnov test (K-S test), the Lilliefors test, and the Shapiro-Wilk test. The results of these tests indicated that the distributions of these measures were relatively normal ($p$ values $> .49$). We also examined whether multicollinearity between the personality variables, the Distress variables, and the Suicidality variables was a concern. Eigenvalues of the scaled and uncentered cross-products’ matrix, condition indices, and variance decomposition proportions, along with variance inflation factors (VIF) and tolerances from multicollinearity analyses, indicated the absence of any multicollinearity. Our analyses focused on the role of Distress in mediating the association between the personality characteristics of Self-Criticism, Dependency, and Efficacy and Suicidality.

We used structural equation modeling (SEM; Hoyle & Smith, 1994) to assess measurement errors in the dependent and independent variables. We conducted the SEM analysis in two stages. In the first stage, we used SEM to examine the direct associations between the personality variables and Suicidality. In the second stage, we used SEM to examine whether Distress mediated the association between the personality variables and Suicidality, following the criteria for mediation proposed by Baron and Kenny (1986). All analyses were conducted with AMOS (version 18; Arbuckle, 2009) using the maximum-likelihood method in which we specified two latent factors: Suicidality, which was defined by two indicators (attempts and ideation), and Distress, which was defined by four indicators (depression, anxiety, hostility, and interpersonal sensitivity).

Several fit indices were used. We first used the $\chi^2$ test to evaluate how the proposed model fit the data as compared to the saturated model (the baseline model that represents perfect model fit). A nonsignificant $\chi^2$ has traditionally been used as a criterion for not rejecting a SEM model. A nonsignificant $\chi^2$ indicates that the matrix of the parameters estimated based on the proposed model is not significantly different from the matrix based on the empirical data. However, this is a very strict and sensitive criterion that is influenced by the number of variables and the number of participants (e.g., Landry, Smith, Swank et al., 2000). For this reason, we also used additional fit indices: the $\chi^2/df$ ratio, the root mean square error of approximation (RMSEA and two-sided 90% confidence intervals), the comparative fit index ($CFI$), and the non-normed fit index ($NNFI$). A model in which the $\chi^2/df$ value was $\leq 3$, the $CFI$ and $NNFI$ values were greater than .90, and the RMSEA index was between .00 and .06 with confidence intervals between .00 and .08 (Hu & Bentler, 1999) was considered acceptable. These moderately stringent acceptance criteria clearly reject inadequate or poorly specified models while accepting models that meet real-world criteria for reasonable fit and representation of the data (Kelloway, 1998). Descriptive statistics for the demographic variables are presented in Table 1. Zero-order correlations and the means and their standard deviations for the variables included in the final SEM models are presented in Table 2.

Preliminary Analyses

In a preliminary analysis, we explored possible associations between sociodemographic variables (gender, age, education, employment status, marital status, number of visits to a physician in the past year, use of illegal drugs, chronic illness, having
### TABLE 2. Zero-Order Correlations Among the Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>M</th>
<th>SD</th>
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<td>Personality predispositions</td>
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<tr>
<td>1. Self-Criticism</td>
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<td>—</td>
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<td>—</td>
</tr>
<tr>
<td>2. Dependency</td>
<td>.05</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<td>—</td>
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<tr>
<td>3. Efficacy</td>
<td>.08</td>
<td>.20*</td>
<td>—</td>
<td>—</td>
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<td>—</td>
<td>—</td>
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<tr>
<td>4. Neediness</td>
<td>.44***</td>
<td>.62***</td>
<td>—</td>
<td>—</td>
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<tr>
<td>5. Hostility</td>
<td>.39***</td>
<td>.23*</td>
<td>—</td>
<td>.31**</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<td>—</td>
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<tr>
<td>6. Anxiety</td>
<td>.25*</td>
<td>.15</td>
<td>—</td>
<td>.28**</td>
<td>.19*</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<td>—</td>
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<tr>
<td>7. Depression</td>
<td>.46***</td>
<td>.31***</td>
<td>—</td>
<td>.21*</td>
<td>.50***</td>
<td>.49***</td>
<td>.42***</td>
<td>—</td>
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<td>—</td>
</tr>
<tr>
<td>8. Interpersonal Sensitivity</td>
<td>.49***</td>
<td>.26**</td>
<td>—</td>
<td>.45***</td>
<td>.49***</td>
<td>.45***</td>
<td>.82***</td>
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<td>Suicidality</td>
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<td>9. Ideation</td>
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<td>.16</td>
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<td>10. Attempts</td>
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<td>.17</td>
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<td>.28**</td>
<td>.23*</td>
<td>.35***</td>
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<td>.20</td>
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</table>

**Note.** N = 105. *p < .05, two-tailed. **p < .01, two-tailed. ***p < .001, two-tailed.
ever visited a psychologist or psychiatrist, and having received a psychiatric diagnosis) and the study variables (Distress and Suicidality). A series of correlations indicated significant associations between gender and having attempted suicide ($r = .20, p < .04$), between gender and depression ($r = .21, p < .03$), between age and hostility ($r = -.24, p < .02$), between use of illegal drugs and hostility ($r = .20, p < .05$), and between having a chronic illness and anxiety ($r = .22, p < .03$). Moreover, having ever gone to a psychologist or a psychiatrist was significantly associated with high levels of interpersonal sensitivity ($r = .24, p < .01$), depression ($r = .36, p < .0001$), hostility ($r = .29, p < .002$), suicidal ideation ($r = .31, p < .01$), and having attempted suicide ($r = .31, p < .01$). Having received a psychiatric diagnosis was significantly associated with interpersonal sensitivity ($r = .34, p < .0001$), depression ($r = .34, p < .0001$), and having attempted suicide ($r = .22, p < .03$). No significant associations were found between the study variables and any of the following sociodemographic variables: marital status, employment, education, and the number of doctor visits within the past year. Accordingly, subsequent analyses controlled for gender, age, drug use, chronic illness, having visited a psychologist or psychiatrist, and having received a psychiatric diagnosis.

**Self-Criticism, Dependency, Efficacy, and Suicidality**

**Direct-association model.** The SEM model used to test direct associations of Self-Criticism, Dependency, and Efficacy (controlling for their shared variance) with Suicidality fit the observed data very well: $\chi^2 (2) = 0.614, p > 0.736$, $\chi^2/df = 0.307$, NNFI = .995, CFI = 1.00, RMSEA = .000 [90% CI 0.000, 0.08]. As indicated in Figure 1, only the association between Self-Criticism and Suicidality was significant ($\beta = .40, t = 2.394, p < 0.017$). The associations between Dependency and Suicidality

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**FIGURE 1.** Direct associations model of the relationships between Self-Criticism, Dependency and Efficacy, and Suicidality.

*Note:* Rectangles indicate measured variables and the large circle represent latent construct. Small circles reflect residuals (e). Bold numbers above or near endogenous variables represent the amount of variance explained ($R^2$). The bidirectional arrow depicts covariance and unidirectional arrows depict hypothesized directional links. Standardized maximum likelihood parameters were used. Bold estimates are statistically significant.

**p < .01, two-tailed.**
Efficacy and Suicidality \( (\beta = -0.17, t = -1.213, \text{ns}) \) were not significant. This model significantly explained 19% of the variance in Suicidality.

Mediation Model. We ran a mediational SEM model including Self-Criticism, Dependency, Efficacy (controlling for the shared variance of the three personality factors), Distress, and Suicidality. This model fit the observed data very well: \( \chi^2 (20) = 20.798, p > 0.409, \chi^2 / df = 1.04, NNFI = 0.971, CFI = 0.999, \text{RMSEA} = 0.020 \) [90% CI 0.000, 0.08]. The association between Self-Criticism and high levels of Suicidality was mediated by high levels of Distress \( (\beta = 0.54, t = 6.452, p < 0.0001) \), as indicated by the finding that the weight of the direct path from Self-Criticism and Suicidality decreased relative to the direct-association model \( (\beta = 0.12, t = 0.761, \text{ns}; \text{Figure 2}) \). While no significant direct associations were observed between Efficacy and Suicidality or between Dependency and Suicidality (Figure 1), Figure 2 shows how both Efficacy and Dependency had significant indirect associations with Suicidality.

Note: Rectangles indicate measured variables and the large circles represent latent constructs. Small circles reflect residuals (e). Bold numbers above or near endogenous variables represent the amount of variance explained \( (R^2) \). The bidirectional arrow depicts covariance and unidirectional arrows depict hypothesized directional links. Standardized maximum likelihood parameters were used. Bold estimates are statistically significant.

* \( p < .05 \), two-tailed. ** \( p < .001 \), two-tailed.
Suicidality through their associations with Distress. High levels of Dependency were significantly associated with high levels of Distress ($\beta = .36, t = 4.459, p < .0001$), high levels of Efficacy were significantly associated with low levels of Distress ($\beta = -.32, t = -3.985, p < .0001$), and high levels of Distress were significantly associated with Suicidality ($\beta = .51, t = 2.284, p < .022$). The indirect associations between high levels of Self-Criticism and high levels of Suicidality ($\chi^2 = 2.18, p < 0.03$), high levels of Dependency and high levels of Suicidality ($\chi^2 = 2.08, p < 0.04$), and high levels of Efficacy and low levels of Suicidality ($\chi^2 = 2.03, p < 0.04$) were all found to be significant when subjected to the $\chi^2$ test (Sobel, 1982). This model significantly explained 47% of the variance in Distress and 32% of the variance in Suicidality. Thus, when Distress was included in the model, it added a significant 13% to the explained variance in Suicidality.

Self-Criticism, Neediness, Efficacy, and Suicidality

Direct-association Model. We also ran the direct-association SEM model presented in Figure 1 with Neediness in place of Dependency. The direct-association model that included Self-Criticism, Neediness, and Efficacy (controlling for their shared variance) and Suicidality fit the observed data very well: $\chi^2 (20) = 20.211, p > 0.445$, $\chi^2 / df = 1.01$, NNFI = 0.972, CFI = 1.00, RMSEA = .01 [90% CI 0.000, 0.08]. In this model, as in the model that included Dependency, the association between Self-Criticism and Suicidality was mediated by high levels of Distress ($\beta = .40, t = 4.136, p < .0001$), as indicated by the findings that the weight of the direct path from Self-Criticism and Suicidality decreased as compared to the direct-association model ($\beta = .17, t = 1.04, ns$). While no significant direct association between Neediness and Suicidality was observed, as with Dependency, there was a significant indirect association between Neediness and Suicidality through the association between Neediness and Distress ($\beta = .31, t = 3.09, p < .002$). Distress was significantly associated with Suicidality ($\beta = .49, t = 2.284, p < .022$). However, in this model, Efficacy was not significantly associated with low levels of Distress ($\beta = -.14, t = -1.49, ns$). The indirect association between Self-Criticism ($\chi^2 = 2.08, p < 0.04$) and high levels of Suicidality was found to be significant; whereas the indirect association between Neediness and Suicidality was found to be less significant ($\chi^2 = 1.93, p < 0.054$) when examined using the $\chi^2$ test (Sobel, 1982). This model explained a significant portion of the variance in Distress (41%) and a significant portion of the variance in Suicidality (32%). Thus, when Distress was included in the model, it added a significant 14% to the explained variance in Suicidality.

Mediation Model. Next, we re-ran the mediational model presented in Figure 2 with Neediness in place of Dependency. This model included Self-Criticism, Neediness, and Efficacy (controlling for their shared variance) and Distress and Suicidality and fit the observed data very well: $\chi^2 (20) = 20.211, p > 0.445$, $\chi^2 / df = 1.01$, NNFI = 0.972, CFI = 1.00, RMSEA = .01 [90% CI 0.000, 0.08]. In this model, as in the model that included Dependency, the association between Self-Criticism and Suicidality was mediated by high levels of Distress ($\beta = .40, t = 4.136, p < .0001$), as indicated by the findings that the weight of the direct path from Self-Criticism and Suicidality decreased as compared to the direct-association model ($\beta = .17, t = 1.04, ns$). While no significant direct association between Neediness and Suicidality was observed, as with Dependency, there was a significant indirect association between Neediness and Suicidality through the association between Neediness and Distress ($\beta = .31, t = 3.09, p < .002$). Distress was significantly associated with Suicidality ($\beta = .49, t = 2.284, p < .022$). However, in this model, Efficacy was not significantly associated with low levels of Distress ($\beta = -.14, t = -1.49, ns$). The indirect association between Self-Criticism ($\chi^2 = 2.08, p < 0.04$) and high levels of Suicidality was found to be significant; whereas the indirect association between Neediness and Suicidality was found to be less significant ($\chi^2 = 1.93, p < 0.054$) when examined using the $\chi^2$ test (Sobel, 1982). This model explained a significant portion of the variance in Distress (41%) and a significant portion of the variance in Suicidality (32%). Thus, when Distress was included in the model, it added a significant 14% to the explained variance in Suicidality.

Finally, it is important to note that when direct and mediating models were examined while controlling for the shared variance associated with gender, age, use of illegal drugs, chronic illness, having
visited a psychologist or psychiatrist, and having received a psychiatric diagnostic and personality variables, as well as the associations between these variables and distress and suicidality, the results were not altered. In the interest of parsimony and to simplify the presentation of the models, these variables were trimmed from the final model.

**DISCUSSION**

We addressed the relationship between the personality dimensions of Self-Criticism, Dependency, and Efficacy (Blatt, 2008) and suicidality and the meditational role of distress in the relationship between these personality dimensions and suicidality. Three hypotheses are supported by the data. Self-Criticism, but not Dependency or Efficacy, is positively associated with both distress and suicidality. High levels of Self-Criticism, high levels of Dependency, and low levels of Efficacy are all positively associated with distress and distress plays a mediating role in the association between Self-Criticism and suicidality.

When we considered Neediness, the more maladaptive component of Dependency, very similar effects were noted. Thus, our findings are congruent with theoretical and empirical models for suicide and suicidal behavior that have proposed that personality traits may predispose individuals to react with increased distress to situations they perceive as stressful (e.g., see review in Beautrais, Collings, Ehrhardt et al., 2005).

Our results also indicate that Self-Criticism is an important vulnerability factor for suicidality. Dependency, in contrast, has only an indirect association with suicidality. Dependency is associated with high levels of distress which, in turn, are associated with higher levels of suicidality.

These findings suggest that self-critical individuals are vulnerable to distressful events. They are easily provoked to anger, which they direct toward others as well as themselves (Hewitt & Flett, 1991) and thus can be self-destructive and suicidal (e.g., Beck, 1983; Blatt, 1974, 1995, 2008; Blatt, Quinlan, Chevron et al., 1982; Fazaa & Page, 2003; Hewitt, Flett, & Weber, 1994; Hewitt, Newton, Flett et al., 1997).

Fazaa and Page (2003) found that the suicide attempts of Self-Critical (introjective) college students showed greater intent to die and greater lethality than the suicide attempts of Dependent (anaclitic) students. Suicide attempts among introjective college students were often in response to an intrapsychic stressor. In contrast, the suicide gestures of dependent (anaclitic) individuals tended to be designed to communicate their unhappiness, without serious intent to harm themselves (Blatt, Quinlan, Chevron et al., 1982; Fazaa & Page, 2003). Dependent (anaclitic) college students who make suicide attempts tend to try to ensure their survival by making less lethal attempts and attempting suicide in ways that increase the probability of being discovered. These suicide attempts often follow interpersonal life stressors and appear to be “a plea for help or nurturance” (Fazaa & Page, 2003, p. 181). Self-critical individuals who feel guilty and worthless are at considerable risk for serious suicide attempts (Beck, 1983; Blatt, 1974, 1995; Blatt, Quinlan, Chevron et al., 1982). It is noteworthy that “numerous clinical reports as well as accounts in the mass media illustrate the considerable suicidal potential of highly talented, ambitious, and very successful individuals who are plagued by a severe superego—by intense self-scrutiny, self-doubt, and Self-Criticism” (Blatt, 2008, p. 140).

Because of their need to maintain a personal and public image of strength and perfection, such individuals are constantly trying to prove themselves, are always on trial, feel vulnerable to any possible implication of failure or
criticism, and often are unable to turn to others, even the closest of confidants, for help or to share their anguish. (Blatt, 1995, p. 105).

These highly self-critical, perfectionistic individuals are vulnerable to intense depression, often accompanied by suicidal impulses (Blatt, 2008). In contrast, Efficacy, the more positive and adaptive expression of self-definition on the DEQ, is associated with low levels of distress which, in turn, are associated with low levels of suicidality. Thus, Efficacy may play a protective role in vulnerability to stress and suicide risk. These findings suggest that Efficacy is a resilience dimension that should be explored more fully.

The results of this study have three important clinical implications: (1) Self-critical (introjective) individuals are at greater risk for suicide. (2) Dependent (anaclitic) individuals may also be at risk for suicide, indirectly, because of their vulnerability to distressful events. (3) Efficacy, the third personality factor assessed by the DEQ, appears to assess a resiliency component that protects individuals from distress and suicidality.

Limitations of this Study

It is important to note that, in this study, the relationships between personality dimensions and suicidality and distress were assessed in a non-clinical sample with self-report measures in a cross-sectional design with a relatively small sample. The obtained results should be compared with findings from clinical samples at high risk for suicide before any causal inferences are made. Moreover, in order to increase generalizability as well as statistical power, further studies should involve larger samples. However, given the increasing evidence of the value of Blatt’s (2008) theoretical formulations of the centrality of interpersonal relatedness and self-definition in vulnerability to stress, as well as the value of the DEQ as an assessment procedure, the findings of the present study suggest the importance of more fully exploring variables other than distress that may explain the increased risk for suicidality in self-critical individuals.

Conclusions

The finding that Self-Criticism is positively associated with both distress and suicidality, and the findings that high levels of Dependency are positively associated with distress, high levels of Efficacy are negatively associated with distress, and that distress mediates the association between Self-Criticism and suicidality, are well supported. Increased suicide risk is associated with particular individual/personality factors relating to feelings of distress, such as Self-Critical Perfectionism. Our findings demonstrate the need for public health interventions to prevent suicidal behavior in community young adults by addressing vulnerability and resilience, as indicated by predisposing personality variables that protect individuals from intense distress and suicidality.

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