PERFECTIONISM DIMENSIONS, PERFECTIONISTIC DYSFUNCTIONAL ATTITUDES, NEED FOR APPROVAL, AND DEPRESSION SYMPTOMS IN ADULT PSYCHIATRIC PATIENTS AND YOUNG ADULTS

by

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Abstract

Perfectionism dimensions, perfectionistic dysfunctional attitudes [PDA], need for approval [NFA], and depression were examined in 70 psychiatric patients and 211 young adults. Socially prescribed perfectionism was strongly correlated with and solely predictive of PDA. Socially prescribed perfectionism uniquely predicted depression in psychiatric patients after controlling for PDA and NFA (without an opposite pattern occurring). Four interactions were obtained for young women: socially prescribed perfectionism interacted with interpersonal stressors and achievement stressors to predict depression; self-oriented perfectionism interacted with perceived coping difficulties to predict depression; PDA interacted with achievement stressors to predict depression. Perfectionism dimensions are more precise than PDA in that they separate socially-based perfectionistic tendencies from self-directed perfectionistic tendencies. Perfectionism dimensions are more comprehensive than PDA in that they include attitudes and cognitions as well as behaviors, motivations, and interpersonal dynamics.

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Perfectionism Dimensions, Perfectionistic Dysfunctional Attitudes, Need for Approval, and Depression Symptoms in Adult Psychiatric Patients and Young Adults

The relationship between perfectionism and depression has attracted considerable attention from practitioners and researchers. Theoretical perspectives (e.g., Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 2002; Slaney, Rice, & Ashby, 2002), and empirical studies (e.g., Chang, 2000; Hewitt et al., 2002; Rice, Ashby, & Slaney, 1998) have contributed to the general conclusion that perfectionism is a factor in predisposing, precipitating, and prolonging depression among young adults, community members, and psychiatric patients.

In perfectionism and depression research, it is possible to identify two traditions. The first of these traditions, stressing interpersonal processes, has studied the association between perfectionism and depression in terms of self-expectations and interpersonal dynamics. Situating the self within its social context, such studies have embraced a personality framework with an interpersonal focus wherein perfectionism is understood as a multidimensional construct with both self-related components and socially-related components (Hewitt & Flett, 2002; Sullivan, 1953). In assessing this model, investigators have mainly used the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991b). The second of these traditions, emphasizing intrapersonal processes, has examined the link between perfectionism and depression in terms of cognitions and attitudes. Separating the self from its social context, such studies have adopted a cognitive framework wherein perfectionism is considered as a unidimensional construct with largely self-related properties (Burns, 1983; Brown & Beck, 2002). In conducting this research, investigators have frequently relied on the perfectionism subscale of the Dysfunctional Attitude Scale (DAS; Weissman, & Beck, 1978).

Regardless of theoretical orientation, there is general agreement that perfectionism is a stable, trait-like construct that generates, exacerbates, and maintains depression through the rigid

pursuit of unrealistic expectations and the inflexible maintenance of harsh evaluations (Hewitt & Flett, 2002).

Depression Symptoms and Perfectionism Dimensions[1] in a Personality Framework With an Interpersonal Focus

Although early researchers (e.g., Burns, 1983; Weissman & Beck, 1978) embraced an intrapersonally-focused, unidimensional view of perfectionism that involves self-directed cognitions and attitudes, recent investigators (e.g., Hewitt & Flett, 1991b; Hewitt, Flett, Turnbull-Donovan, & Mikail, 1991) have adopted an interpersonally-based, multidimensional model of perfectionism that includes (1) self-related features and socially-based components and (2) attitudes and cognitions as well as behaviors, motivations, and interpersonal dynamics.

Congruent with their model, Hewitt and Flett have constructed the Multidimensional Perfectionism Scale (MPS) to assess three perfectionism dimensions. (1) Self-oriented perfectionism is an intrapersonal dimension that involves requiring perfection of oneself and includes unrealistic self-expectations, punitive self-rebuke, and stringent self-evaluations. (2) Other-oriented perfectionism is an interpersonal dimension which entails unrealistic expectations for and harsh evaluations of others. (3) Socially prescribed perfectionism is an interpersonal dimension that involves the perception that others are demanding perfection of oneself and encompasses excessive need for approval and intense fear of evaluation. Such perfectionistic behaviors, cognitions, motivations, and interpersonal dynamics have been postulated to serve as a vulnerability to various types of psychopathology, directly and indirectly, by generating, maintaining, and exacerbating negative life events and aversive failure experiences (Hewitt & Flett, 2002).[2]

Although perfectionism dimensions have been implicated in numerous pathological states (Flett & Hewitt, 2002), self-oriented perfectionism and socially prescribed perfectionism have

been linked especially to depressive disorders (e.g., Blankstein & Dunkley, 2002; Chang & Sanna, 2001; Chang & Rand, 2000; Enns & Cox, 1999; Enns, Cox, & Larsen, 2000; Flett, Hewitt, Blankstein, & Mosher, 1995; Flett, Hewitt, Garshowitz, & Martin, 1997; Hewitt, Flett, Ediger, Norton, & Flynn, 1998; Hewitt & Flett, 1991a, 1991b, 1993; Hewitt, Flett, & Ediger, 1996; Hewitt, Flett, & Endler, 1995; Martin, Flett, Hewitt, Krames, & Szanto, 1996; Preusser, Rice, & Ashby, 1994). First, in terms of the general relationship between perfectionism dimensions and depression symptoms, Hewitt and Flett (1991a) found that psychiatric patients with a diagnosis of unipolar depression possessed elevated levels of self-oriented perfectionism compared to adult psychiatric patients with a diagnosis of anxiety disorder. Second, Hewitt et al. (1998) revealed that, in a sample of 121 current/former adult psychiatric patients with depressive disorders, self-oriented perfectionism was uniquely tied to chronic unipolar depression symptoms, whereas socially prescribed perfectionism and other-oriented perfectionism were uniquely associated with chronic bipolar depression symptoms. Third, Enns and Cox (1999) demonstrated that, in a sample of 145 adult psychiatric patients with DSM-IV Major Depressive Disorder, socially prescribed perfectionism was positively and significantly correlated with depression symptoms after neuroticism and extraversion were partialled out. Fourth, Hewitt et al. (1995) determined that, in a heterogeneous sample of 121 adult psychiatric patients, self-oriented perfectionism interacted with emotion-focused coping to predict increased severity of depression.[3] Building upon these four studies, Hewitt and Flett (2002) theorized that self-oriented perfectionism, through the maintenance of rigid self-standards, punitive self-rebuke, and harsh self-evaluations, and socially prescribed perfectionism, through the operation of excessive need for approval, intense interpersonal sensitivity, and exaggerated fear of negative evaluation, act as a vulnerability to depression by decreasing the frequency and magnitude of positive life experiences and increasing the impact and severity of negative life experiences.

In terms of the associations among perfectionism dimensions, achievement stressors, interpersonal stressors, and depression symptoms, Hewitt and Flett (1993) showed that in a sample of 51 adult psychiatric patients diagnosed with unipolar depression, self-oriented perfectionism combined with achievement stressors to predict increased severity of depression and socially prescribed perfectionism interacted with interpersonal stressors to predict elevated severity of depression. However, as part of Study 2, in a heterogeneous sample of 94 adult psychiatric patients, self-oriented perfectionism interacted with achievement stressors to predict increased severity of depression, whereas socially prescribed perfectionism combined with either achievement stressors or interpersonal stressors to predict elevated severity of depression. Lastly, in a 4-month longitudinal study, Hewitt et al. (1996) established that, in a sample of 103 current/former adult psychiatric patients with depressive disorders, socially prescribed perfectionism predicted depression symptoms as a main effect, whereas self-oriented perfectionism, combined with achievement stressors, predicted depression symptoms as an interaction effect. These data were consistent with Hewitt and Flett (1993) who postulated that, as part of their specific vulnerability hypothesis, self-oriented perfectionism, when coupled with congruent, ego-involving, achievement-oriented stressors and socially prescribed perfectionism, when combined with congruent, ego-involving, interpersonally-based stressors confers a specific vulnerability to depression (e.g., Hewitt & Flett, 1993; Hewitt et al., 1996).[4]

Depression Symptoms and Dysfunctional Attitudes In a Cognitive Framework

According to Beck, Epstein, and Harrison (1983), negative automatic thoughts are aspects of state-dependent, unstable, shallow-level cognitions that function mostly within awareness, whereas dysfunctional attitudes are components of trait-like, stable, deep-level structures that operate mostly without awareness.[5] Beck et al. have argued that, taken together, negative automatic thoughts and dysfunctional attitudes generate distorted cognitive patterns

involving unrealistically negative perspectives on, interpretations of, and expectancies about the self, the future, and the world (Wright & Beck, 1983).

Beck and colleagues have developed the Dysfunctional Attitude Scale (DAS) to measure maladaptive beliefs, attitudes, and assumptions believed to arise from distorted self-schemata and to confer cognitive vulnerability to depression (Beck, Brown, Steer, & Weissman, 1991). Although the 100-item DAS was originally designed to measure nine dysfunctional attitudes (Weissman & Beck, 1978), factor analyses of the 40-item Dysfunctional Attitude Scale-Form A have subsequently revealed two specific dysfunctional attitudes (Cane, Olinger, Gotlib, & Kuiper, 1986; Imber et al., 1990; Persons, Miranda, & Perloff, 1991; Rude & Burnham, 1993): perfectionistic dysfunctional attitudes (i.e., PDA) and need for approval (i.e., NFA). PDA involve problems of harsh self-criticism and stringent self-evaluation in the achievement domain, whereas NFA encompasses issues of dependency and helplessness in the interpersonal domain.

Dysfunctional attitudes have been theorized to function as a cognitive vulnerability to depression by generating thoughts, expectations, and interpretations that are "centrally involved" (Beck, 1997, p. 57) in affective, behavioral, and physiological responses characteristic of depression. For example, dysfunctional attitudes have been conceptualized as rigid rules, "implicit condition[s]," and inappropriate expectations that act as "a contractual basis for self-worth [and for] happiness" (Olinger, Shaw, & Kuiper, 1987, p. 41). In this way, when negative life events (e.g., receiving a demotion at work) impact on inflexible "contingencies for self-worth" (e.g., "If I fail at my work, then I am failure as a person"), depression symptoms are generated and sustained (Kuiper, Olinger, & Air, 1989, p. 229).

Although it is uncertain whether dysfunctional attitudes are antecedents, concomitants, or consequences of depression (Barnett & Gotlib, 1988), dysfunctional attitudes have been tied to symptom severity (Scott, Harrington, House, & Ferrier, 1996), symptom persistence (Bothwell &

Scott, 1997), symptom relapse (Lam, Green, Power, & Checkley, 1996), and treatment outcome (Blatt, Zuroff, Bondi, Sanislow, & Pilkonis, 1998) in adult psychiatric patients diagnosed with Major Depressive Disorder. Furthermore, dysfunctional attitudes have been linked cross-sectionally (Olinger, Shaw, & Kuiper, 1987), experimentally (Alloy, Abramson, Murray, Whitehouse, & Hogan, 1997), and longitudinally (Joiner, Metalsky, Lew, & Klocek, 1999) to depression symptoms in young adults.

Finally, despite disconfirming evidence (Barnett & Gotlib, 1990; Rude & Burnham, 1993), there is support for Beck's specific cognitive vulnerability hypothesis[6] wherein (1) perfectionistic and self-critical attitudes interact with corresponding achievement-related stressors (e.g., retiring from work) to predict depression and (2) dependent and helpless attitudes combine with matching interpersonally-based stressors (e.g., ending a relationship) to predict depression (Barnett and Gotlib, 1990; Brown, Hammen, Craske, & Wickens, 1995; Dykman & Johll, 1998; Lam et al., 1996; Segal, Shaw, Vella, & Katz, 1992).[7]

Perfectionism Dimensions and Dysfunctional Attitudes

From the foregoing account, it is apparent that perfectionism dimensions and PDA are similar constructs evaluating comparable hypotheses. For instance, for individuals characterized by perfectionism dimensions and PDA (1) "performance [is] an index of self-worth" (Simons, Angell, Monroe, & Thase, 1993, p. 585), (2) flawlessness is a motivational force, (3) stress is a problematic influence, (4) self-rebuke is a common occurrence, (5) intimacy is a difficult attainment, and (6) depression is a likely possibility (Brown & Beck, 2002; Hewitt & Flett, 2002; Hewitt & Flett, 1991b; Kovacs & Beck, 1978). Accordingly, we examined the overlap of perfectionism dimensions and PDA, and assessed whether self-oriented and socially prescribed perfectionism are correlated positively with PDA. We also evaluated the convergence of perfectionism dimensions and NFA, and determined whether socially prescribed perfectionism is

correlated strongly with NFA given that both involve excessive fear of negative evaluation, intense interpersonal sensitivity, and excessive neediness.

Obvious similarities aside, important conceptual distinctions exist between perfectionism dimensions and PDA. Notably, perfectionism dimensions stem from a multidimensional personality model that conceptualizes perfectionism in terms of self-related strivings and motivations as well as other-related dynamics and expectations, whereas PDA arise from a unidimensional cognitive model that views perfectionism in terms of self-related cognitions and attitudes. Such theoretical differences enable differential predictions.

For example, because we regard perfectionism dimensions as more precise than PDA in that they separate interpersonal, other-focused, perfectionistic tendencies from intrapersonal, self-directed, perfectionistic tendencies and because we consider perfectionism dimensions as more comprehensive than PDA in that they include attitudes and cognitions as well as behaviors, motivations, and interpersonal dynamics, we evaluated the unique contribution of perfectionism dimensions and dysfunctional attitudes in predicting depression symptoms.

An additional aim was to test Hewitt and Flett's specific vulnerability hypothesis and Beck's specific cognitive vulnerability hypothesis wherein either perfectionism dimensions or dysfunctional attitudes interact with congruent stressors to predict depression symptoms. Building on prior research, we predicted the following: (1) Both PDA and self-oriented perfectionism will interact with achievement stressors to predict depression symptoms (Brown, Hammen, et al., 1995; Hewitt et al., 1996); (2) Both NFA and socially prescribed perfectionism will interact with interpersonal stressors to predict depression symptoms (Hewitt & Flett, 1993; Lam et al., 1996).

Although perfectionism dimensions and dysfunctional attitudes are related concepts (Blatt, 1995; Zuroff et al., 2000) with demonstrated links to depression (Brown & Beck, 2002;

Hewitt & Flett, 2002), to date, neither their association with one another nor their differential relation to depression has been established. In addressing this shortcoming, in Sample 1 we examined perfectionism dimensions, dysfunctional attitudes, and depression symptoms in adult psychiatric patients. To replicate and to extend Sample 1, in Sample 2, we investigated perfectionism dimensions, dysfunctional attitudes, achievement stressors, interpersonal stressors, perceived coping difficulties, and depression symptoms in young adults.

Method

Participants

Sample 1. A diagnostically heterogeneous sample of 70 adult psychiatric in- and out-patients completed measures (38 women and 32 men). Participants averaged 36.1 years of age (SD = 10.78) and 11.7 years of education (SD = 2.19). In this sample, 36% of participants were married; 33% were unmarried; and, 31% were divorced/separated. Seventy-three percent of participants were out-patients; 21% were in-patients; and, 6% were unidentified. Twenty-three percent of participants were diagnosed with mood disorders; 14% were diagnosed with schizophrenia; 14% were diagnosed with either relational problems or physical/sexual abuse problems; and, 49% were diagnosed with other problems.[8]

Sample 2. A sample of 211 young adults in university courses completed measures (70 men and 141 women). Participants averaged 19.87 years of age (SD = 3.46) and 1.91 years of university education (SD = 0.89). In this sample, 88% of participants were single.

Materials

In Sample 1, participants completed the following measures:

Multidimensional Perfectionism Scale (MPS). The MPS (Hewitt & Flett, 1991b) is a 45-item scale composed of three 15-item subscales designed to measure self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism. Individual MPS subscale

scores range from 15 to 105. Higher scores indicate an increased level of perfectionism. A number of studies have documented the validity, stability, reliability, and multidimensionality of the MPS (e.g., Flett, Sawatzky, & Hewitt, 1995; Hewitt & Flett, 1991b; Hewitt et al., 1991).

Dysfunctional Attitude Scale-Form A (DAS). The DAS (Weissman, 1979; Weissman, & Beck, 1978) is a 26-item measure comprised of two factors: an 11-item subscale intended to assess perfectionism and a 15-item factor developed to assess need for approval. Scores range from 11 to 77 on the perfectionism subscale and from 15 to 105 on the need for approval subscale. Higher scores suggest an increased number of dysfunctional attitudes. Several studies have verified the psychometric adequacy of the DAS (Imber et al., 1990; Brown & Beck, 2002; Persons et al., 1991; Zuroff, Blatt, Sanislow, Bondi, & Pilkonis, 1999).

Beck Depression Inventory (BDI). The BDI (Beck, Steer, & Garbin, 1988) is a 21-item inventory created to measure the severity and frequency of the somatic, affective, cognitive, and behavioral symptoms of depression over a one-week period. BDI scores range from 0 to 63. Higher scores indicate increased depression. Numerous studies have established the validity, reliability, and discriminability of the BDI (Brown, Schulberg, & Madonia, 1995; Clark, Steer, & Beck, 1994; Endler, Cox, Parker, & Bagby, 1992).

In Sample 2, in addition to the Multidimensional Perfectionism Scale, the Dysfunctional Attitude Scale-Form A, and the Beck Depression Inventory, participants completed the following measures:

Hassles Scale (HS). The HS (Delongis, Folkman, & Lazarus, 1988) is a 53-item scale composed of two subscales: a 16-item subscale designed to assess interpersonal stressors (e.g., fellow workers, social commitments) and a 27-item subscale designed to measure achievement stressors (e.g., work load, job commitment). Individual HS subscale scores range from 0 to 64

on the interpersonal stressors subscale and from 0 to 108 on the achievement stressors subscale. Higher scores indicate an increased number of stressors. Several studies have attested to the validity and the reliability of the HS (Delongis et al., 1988; Hewitt & Flett, 1993; Johnson, Crofton, & Feinstein, 1996).

Perceived Stress Scale: Perceived Coping Difficulties (PCD). The PCD (Hewitt, Flett, & Mosher, 1992) is a 4-item measure created to quantify the "perception of an ability to cope with extant stressors" (p. 254). PCD items are reverse scored. PCD scores extend from 0 to 16. Higher scores signify a decreased perception of an ability to deal with life stressors. The PCD is derived from the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). Researchers have established the reliability and the validity of the PCD (Hewitt et al., 1992; Martin, Kazarian & Breiter, 1995).

Procedure

Participation was anonymous, confidential, and voluntary. Following their completion of the study, participants were debriefed. Young adults received course credit for their participation.

Results

Means, standard deviations, and coefficients alpha are presented in Table 1 for Sample 1 (i.e., adult psychiatric patients) and Table 2 for Sample 2 (i.e., young adult men and women). In Sample 1, means and standard deviations approximated past studies that utilized the MPS (e.g., Hewitt & Flett, 1991b), DAS (e.g., Persons et al., 1991), and BDI (e.g., Hewitt et al., 1995) in samples of adult psychiatric patients. In keeping with past research that has identified gender differences in the association between perfectionism, coping, and depression (Hewitt et al., 1995), in Sample 2, young adult men and women are considered separately. In Sample 2, means and standard deviations paralleled prior studies that used the MPS (e.g., Hewitt & Flett, 1991b),

DAS (e.g., Whisman & McGarvey, 1995), BDI (e.g., Flett, Hewitt, Blankstein, et al., 1995), and HS (e.g., Margiotta, Davilla, & Hicks, 1990) in samples of young adults. Coefficients alpha were adequate for all measures in both samples.

Perfectionism Dimensions and Dysfunctional Attitudes

Intercorrelations among all measures are presented in Table 1 for Sample 1 and Table 2 for Sample 2. In both samples, self-oriented perfectionism and socially prescribed perfectionism were associated significantly with dysfunctional attitudes. Notably, socially prescribed perfectionism was associated strongly with PDA in adult psychiatric patients and young adult men and women, suggesting considerable overlap. Other-oriented perfectionism was not correlated significantly with PDA in young adult men and was only correlated weakly with PDA in adult psychiatric patients and young adult women, suggesting self-oriented perfectionism and socially prescribed perfectionism are most relevant to dysfunctional attitudes.

Multiple regression analyses were conducted to clarify the relationship between perfectionism dimensions and dysfunctional attitudes. In each analysis, perfectionism dimensions were used simultaneously to predict dysfunctional attitudes. These results are displayed in Table 3. In both samples, PDA were predicted solely by socially prescribed perfectionism. NFA was predicted by self-oriented perfectionism and socially prescribed perfectionism in adult psychiatric patients, with socially prescribed perfectionism being the strongest predictor. In young adult men and women, NFA was predicted solely by socially prescribed perfectionism.

Perfectionism Dimensions, Dysfunctional Attitudes, and Depression Symptoms

PDA, NFA, self-oriented perfectionism, and socially prescribed perfectionism were associated moderately with depression symptoms in adult psychiatric patients (see Table 1). PDA, NFA, and socially prescribed perfectionism were correlated moderately with depression

symptoms in young adult women (see Table 2). Neither dysfunctional attitudes nor perfectionism dimensions were correlated significantly with depression symptoms in young adult men (see Table 2).

To determine the unique contribution of dysfunctional attitudes and perfectionism dimensions in predicting depression symptoms, we conducted a series of hierarchical regression analyses, the results of which are presented in Table 4 for Sample 1 and Sample 2. In both samples, in the first series of hierarchal regression analyses predicting depression symptoms, dysfunctional attitudes were entered in Step 1 and perfectionism dimensions were entered in Step 2. In the second series of hierarchal regression analyses predicting depression symptoms, perfectionism dimensions were entered in Step 1 and dysfunctional attitudes were entered in Step 2. As evidenced in Table 4, for adult psychiatric patients, socially prescribed perfectionism predicted additional variance in depression symptoms beyond the influence of dysfunctional attitudes. However, as expressed in Table 4, for adult psychiatric patients, dysfunctional attitudes did not predict additional variance in depression symptoms beyond the effect of perfectionism dimensions.[9] For young adult men, as represented in Table 4, perfectionism dimensions did not predict additional variance in depression symptoms beyond the effect of dysfunctional attitudes. Similarly, for young adult men, as presented in Table 4, dysfunctional attitudes did not predict additional variance in depression symptoms beyond the influence of perfectionism dimensions. As exhibited in Table 4, for young adult women, socially prescribed perfectionism predicted additional variance in depression symptoms beyond the influence of dysfunctional attitudes. And, as depicted in Table 4, for young adult women, PDA predicted additional variance in depression symptoms beyond the effect of perfectionism dimensions.

Hewitt and Flett's Specific Vulnerability Hypothesis and Beck's Specific Cognitive Vulnerability Hypothesis in Young Adult Men and Women

A series of hierarchical regression analyses were performed to examine Hewitt and Flett's specific vulnerability hypothesis and Beck's specific cognitive vulnerability hypothesis. In each analysis, depression symptoms were predicted and the following variables were entered sequentially: (1) the personality variable (e.g., socially prescribed perfectionism), (2) the stress variable (e.g., interpersonal stressors) or the coping variable (i.e., perceived coping difficulties), and (3) the personality variable by stress variable product vector or the personality variable by coping variable product vector. Only significant interactions are tabled and discussed. In terms of Hewitt and Flett's specific vulnerability hypothesis, as displayed in the first panel of Table 5, for young adult women, socially prescribed perfectionism, achievement stressors, and the interaction of socially prescribed perfectionism and achievement stressors significantly predicted depression symptoms. This interaction indicates that the association between socially prescribed perfectionism and depression symptoms changes depending upon the level of achievement stressors. To elucidate this interaction, consistent with Aiken and West (1991) and Cohen and Cohen (1983), we determined the slopes of the regression of depression symptoms on socially prescribed perfectionism at three different levels of achievement stressors: 1 SD above the mean (high), the mean (medium), and 1 SD below the mean (low). The slope for the high level of achievement stressors was significant[10] ($\beta = .56$, $t = 4.77$, $p < .001$), the slope for the medium level of achievement stressors was significant ($\beta = .40$, $t = 5.51$, $p < .001$), and the slope for the low level of achievement stressors was significant ($\beta = .23$, $t = 2.35$, $p < .05$).[11] Figure 1 provides a graphical representation of this interaction wherein it is apparent that the higher the level of achievement stressors the greater the magnitude of the relationship between socially prescribed perfectionism and depression symptoms. Thus, young adult women with high, medium, and low levels of achievement stressors suffered elevated depression symptoms as socially prescribed perfectionism levels increased. The abovementioned procedure was adopted

in each analysis of significant interactions. Additionally, as presented in the second panel of Table 5, for young adult women, socially prescribed perfectionism, interpersonal stressors, and the interaction of socially prescribed perfectionism and interpersonal stressors significantly predicted depression symptoms. This interaction implies that the connection between socially prescribed perfectionism and depression symptoms changes according to the level of interpersonal stressors. The slope for the high level of interpersonal stressors was significant ($\beta = .62$, $t = 4.83$, $p < .001$), the slope for the medium level of interpersonal stressors was significant ($\beta = .42$, $t = 5.46$, $p < .001$), and the slope for the low level of interpersonal stressors was significant ($\beta = .23$, $t = 2.46$, $p < .05$). Figure 2 presents a graphical representation of this interaction. Thus, young adult women with high, medium, and low levels of interpersonal stressors experienced elevated depression symptoms as socially prescribed perfectionism levels increased. Finally, as exhibited in the third panel of Table 5, for young adult women, self-oriented perfectionism, perceived coping difficulties, and the interaction of self-oriented perfectionism and perceived coping difficulties significantly predicted depression symptoms. This interaction suggests that the relationship between self-oriented perfectionism and depression symptoms changes depending upon the level of perceived coping difficulties. The slope for the high level of perceived coping difficulties was significant ($\beta = .35$, $t = 2.84$, $p < .01$), the slope for the medium level of perceived coping difficulties was not significant ($\beta = .14$, $t = 1.75$, $p > .05$), and the slope for the low level of perceived coping difficulties was not significant ($\beta = -.06$, $t = -0.56$, $p > .05$). Figure 3 offers a graphical representation of this interaction. Thus, only young adult women with high levels of perceived coping difficulties suffered increased depression symptoms as self-oriented perfectionism levels increased.

In terms of Beck's specific cognitive vulnerability hypothesis, as displayed in Table 6, for young adult women, PDA, achievement stressors, and the interaction of PDA and achievement stressors significantly predicted depression symptoms. This interaction suggests that the relationship between PDA and depression symptoms changes according to the level of achievement stressors. The slope for the high level of achievement stressors was significant (β = .58, t = 5.77, $p < .001$), the slope for the medium level of achievement stressors was significant (β = .43, t = 6.04, $p < .001$), and the slope for the low level of achievement stressors was significant (β = .27, t = 2.82, $p < .01$). Figure 4 offers a graphical representation of this interaction. Thus, young adult women at high, medium, and low levels of achievement stressors experienced increased depression symptoms as PDA levels increased.

Discussion

This study examined perfectionism dimensions, dysfunctional attitudes, and depression symptoms in 70 psychiatric patients and 211 young adults. Regarding the conceptual overlap of perfectionism dimensions and PDA, correlational analyses indicated that, in psychiatric patients and young women, self-oriented and socially prescribed perfectionism correlated positively with PDA. With respect to the unique contribution of perfectionism dimensions and dysfunctional attitudes, regression analyses revealed that, in psychiatric patients, socially prescribed perfectionism uniquely predicted depression symptoms after dysfunctional attitudes were controlled for (without an opposite pattern occurring). Finally, in addressing the specific vulnerability model of perfectionism dimensions and dysfunctional attitudes, interaction analyses involving young women provided modest support for Hewitt and Flett's specific vulnerability hypothesis and Beck's specific cognitive vulnerability hypothesis.

Strong empirical relationships exist between perfectionism dimensions and PDA, especially between socially prescribed perfectionism and PDA. In Sample 1 and in Sample 2,

socially prescribed perfectionism was strongly correlated with and solely predictive of PDA, suggesting that PDA provide more of an interpersonal, other-focused view of perfectionism, than an intrapersonal, self-directed model of perfectionism. The relationship between socially prescribed perfectionism and PDA is partly explicable due to their shared focus on relational dynamics: all of the 15 socially prescribed perfectionism items capture interpersonal[12] themes, and six of the 15 PDA items reflect interpersonal concerns. Additional support for the idea that PDA have strong interpersonal content may be found in the finding that NFA[13]—a measure with a definite interpersonal focus—was highly correlated with PDA in this study and in other research (Simons et al., 1993). Moreover, because of their shared emphasis on maladaptive schemas that promote rigid expectations, bleak expectancies, arbitrary inferences, selective abstractions, and chronic misinterpretations (Wright & Beck, 1983; Hewitt & Flett, 1991b), the association between socially prescribed perfectionism and PDA is theoretically appreciable. Although congruent with Barnett and Gotlib's (1990) observation that PDA revolve around "obtaining and maintaining [others'] approval" (p. 56) and Whisman and Friedman's (1998) finding that PDA exhibit "stronger interpersonal content" (p. 156) than NFA, the important finding that socially prescribed perfectionism is strongly correlated with and solely predictive of PDA is opposite to the widespread view that PDA are a straightforward representation of "perfectionism." In fact, when we reviewed what we believed to be every empirical study that has involved PDA, we determined that all 38 either designated PDA as a clear-cut index of "perfectionism" (e.g., Teasdale, Lloyd, & Hutton, 1998) or identified PDA as a self-referential measure of perfectionism (e.g., Dykman, 1997). Thus, it is noteworthy that, in this study, PDA seem more of an interpersonal, other-focused model of perfectionism than an intrapersonal, self-directed model of perfectionism. However, because nine of the 15 PDA items reflect

intrapersonal themes, PDA neither offer a definite picture of the self-oriented aspects of perfectionism nor furnish an unambiguous representation of the socially-related facets of perfectionism.[14] Moreover, although, in their problematic interpersonal themes, perfectionism dimensions and dysfunctional attitudes are broadly related, in their precise interactional styles, they are clearly differentiated. For instance, as Whisman and Friedman (1998), Pincus and Gurtman (1995), and Hill, Zrull, and Turlington (1997) have demonstrated, perfectionism dimensions and PDA each occupy their own octant in the Inventory of Interpersonal Problems-Circumplex (Alden, Wiggins, & Pincus, 1990), suggesting that each construct may generate negative outcomes via different interpersonal styles.

Although perfectionism dimensions and PDA are ostensibly similar in that they purport to measure maladaptive perfectionistic tendencies and excessive achievement strivings, perfectionism dimensions and PDA are decidedly dissimilar in that they derive from disparate theoretical models. Perfectionism dimensions originate from a multidimensional personality model (Hewitt & Flett, 1991b) that situates the self within its relational context (Blatt & Auerbach, 2001) and emphasizes diverse manifestations of perfectionism (e.g., behaviors and motivations), whereas PDA issue from a unidimensional cognitive model (Beck et al., 1983) that divorces the self from its relational context (Blatt & Auerbach, 2001) and stresses cognitive expressions of perfectionism (e.g., attitudes and cognitions). Accordingly, it is not surprising that substantive differences exist between perfectionism dimensions and PDA in this investigation. For example, in evaluating the unique contribution of perfectionism dimensions and dysfunctional attitudes toward depression symptoms, regression analyses demonstrated that, in psychiatric patients, socially prescribed perfectionism uniquely predicted depression symptoms after dysfunctional attitudes were controlled for (without an opposite pattern occurring). Such results not only support our argument that, in distinguishing socially-linked

perfectionistic tendencies from self-related perfectionistic tendencies, perfectionism dimensions are more precise than PDA but also reinforce our position that, in encompassing attitudes and cognitions as well as behaviors, motivations, and interpersonal dynamics, perfectionism dimensions are more comprehensive than PDA. Moreover, despite sharing similarities like unrealistic expectations and punitive self-evaluations with PDA and having commonalities like interpersonal sensitivity and excessive neediness with NFA, in psychiatric patients, socially prescribed perfectionism uniquely predicted depression symptoms after PDA and NFA were controlled for, suggesting that, in capturing both perfectionistic tendencies and approval concerns, socially prescribed perfectionism is uniquely involved in depression beyond the involvement of both PDA or NFA. Notwithstanding, in young adult men and women, neither perfectionism dimensions nor dysfunctional attitudes uniquely predicted depression symptoms, suggesting that the relationship between perfectionism dimensions, dysfunctional attitudes, and depression symptoms may vary according to sample characteristics like severity or duration of depression symptoms (Coyne, 1994).

In examining the specific vulnerability model of perfectionism dimensions and dysfunctional attitudes, interaction analyses involving young women offered equivocal evidence for Hewitt and Flett's specific vulnerability hypothesis and Beck's specific cognitive vulnerability hypothesis wherein personality factors (e.g., socially prescribed perfectionism) are proposed to combine with congruent stressors (e.g., relationship difficulties) to predict depression symptoms (Brown, Hammen, et al., 1995; Hewitt & Flett, 1993).[15] In terms of Hewitt and Flett's specific vulnerability hypothesis, socially prescribed perfectionism interacted with interpersonal stressors and achievement stressors to predict depression, illustrating the role of socially-based perfectionistic tendencies in the interplay between stress and depression in a manner consistent with Hewitt and Flett (1993). Next, self-oriented perfectionism interacted

with perceived coping difficulties to predict depression, highlighting the impact of self-directed perfectionistic demands in the relationship between coping and depression (Hewitt & Flett, 2002). Finally, in terms of Beck's specific cognitive vulnerability hypothesis, PDA interacted with achievement stressors to predict depression, demonstrating the effect of idiosyncratic cognitive distortions in the connection between stress and depression in a similar fashion to Brown, Hammen, et al. (1995). However, altogether, support for the specific vulnerability model of perfectionism dimensions and dysfunctional attitudes was inconsistent—possibly due to the elusiveness of moderated multiple regression (McClelland & Judd, 1993), our reliance on a questionnaire-based stress measure (Simons et al., 1993), the need to jointly consider stress and coping (Hewitt & Flett, 2002), our use of a non-clinical sample (Coyne, 1994), gender differences in the appraisal of and the response to stressful experiences (Vredenburg, Krames, & Flett, 1986), or the strong correlation between achievement stressors and interpersonal stressors in this investigation (Hewitt & Flett, 1993). Overall, our findings mirror prior studies involving perfectionism dimensions (e.g., Hewitt & Flett, 1993) and dysfunctional attitudes (e.g., Lam et al., 1996) in that support for a general diathesis-stress model was consistent but evidence for a specific vulnerability hypothesis was inconsistent.

Despite its considerable strengths, several shortcomings in this study should be addressed by future investigations. First, to date, studies of the relationships among perfectionism, stressors, and depression have used subjective, questionnaire-based measures of stressors, not objective, interview-based measures of stressors (e.g., Flett, Hewitt, Blankstein, et al., 1995). However, Hammen, Marks, Mayol, and deMayo (1985) and Simons et al. (1993) have argued that questionnaire-based measures of stressors detect increased event frequencies and elicit elevated severity ratings compared to interview-based measures. Given the discrepancies between questionnaire measures of stressors and interview measures of stressors, the associations

among perfectionism, stressors, and depression may be dependent on the type of assessment procedures used. Thus, in future studies, interview measures of stressors should be included. Second, experimental investigations in naturalistic settings should be conducted to demonstrate causal connections among perfectionism, stressors, and depression in samples of psychiatric patients. Although Brown et al. (1999), using the FMPS, and Brown, Hammen, et al. (1995), using the DAS, have examined perfectionism, stressors, and depression in academic settings with samples of young adults, experimental investigations of perfectionism, stressors, and depression should be conducted in naturalistic settings with samples of psychiatric patients to extend correlational findings and to determine cause-and-effect relationships. Third, Beck has argued that dysfunctional attitudes are trait-like, enduring expressions of distorted self-schemata (e.g., Beck et al., 1991), whereas research has demonstrated that dysfunctional attitudes are state-dependent, transient expressions of depressive affect (e.g., Kwon & Oei, 1992). Consequently, it is presently unclear whether dysfunctional attitudes are trait-like vulnerabilities to depression that are stable and persist beyond the remission of depression (e.g., Dobson & Shaw, 1986), state-dependent concomitants of depression that are unstable and subside after the remission of depression (e.g., Hamilton & Abramson, 1983), or both.[16] Dysfunctional attitudes have also been shown to vary systematically as a function of current mood-state in psychiatric patients (Miranda & Persons, 1988) and university students (Roberts & Kassel, 1996). Such uncertainties have prompted Barnett and Gotlib (1988) to argue dysfunctional attitudes are merely concomitants of transient depressive symptoms and have motivated Hewitt and Flett (Hewitt et al., 1998) to establish perfectionism dimensions as enduring vulnerabilities to chronic depressive symptoms. Unfortunately, the interpretation of dysfunctional attitudes in this study is complicated by the possibility of temporal instability and the prospect of mood-state dependence.

Notwithstanding, this investigation yielded important results that extended prior understandings of perfectionism dimensions and dysfunctional attitudes: (1) Socially prescribed perfectionism was highly correlated with and solely predictive of PDA in adult psychiatric patients and young adult men and women, strongly suggesting that PDA offer more of an interpersonally-focused view of perfectionism than a self-oriented model of perfectionism. (2) Socially prescribed perfectionism uniquely predicted depression symptoms in adult psychiatric patients after controlling for PDA and NFA, implying that socially prescribed perfectionism offers a more potent, precise, and comprehensive conceptualization of perfectionism. (3) Interaction analyses involving young women yielded equivocal support for Hewitt and Flett's specific vulnerability hypothesis and Beck's specific cognitive vulnerability hypothesis. Thus, this study offers a new perspective on prior perfectionism research and a solid foundation for future perfectionism research.

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Table 1

Means, Standard Deviations, Coefficients Alpha, and Zero-Order Correlations in Adult Psychiatric Patients

Variable	Self	Other	Social	NFA	PDA	BDI
Self	--	.45*	.56*	.53*	.60*	.36*
Other		--	.23	.26	.33**	.00
Social			--	.62*	.84*	.57*
NFA				--	.72*	.44*
PDA					--	.51*
M	72.45	54.97	60.29	49.38	53.35	18.59
SD	23.05	14.29	19.00	12.83	21.46	14.63
α	.94	.77	.89	.80	.92	.95

Note. * $p < .001$. ** $p < .013$. A "multistage Bonferroni correction" (Larzelere & Mulaik, 1977, p. 563) was applied to Table 1. Self = self-oriented perfectionism; Other = other-oriented perfectionism; Social = socially prescribed perfectionism; NFA = need for approval; PDA = perfectionistic dysfunctional attitudes; BDI = depression symptoms. M = means; SD = standard deviations; α = coefficients alpha.

Table 2

Means, Standard Deviations, Coefficients Alpha, and Zero-Order Correlations in Young Adult Men and Women

Variable	Self	Other	Social	NFA	PDA	PCD	IS	AS	BDI	M for ♂	SD for ♂	α for ♂
Self	--	.32	.13	.06	.05	.01	.13	.14	-.04	67.13	10.99	.82
Other	.44*	--	.22	.08	.27	.02	.02	.08	-.03	58.30	8.48	.68
Social	.52*	.38*	--	.35	.64*	.25	.18	.25	.26	58.36	9.64	.75
NFA	.27*	.08	.42*	--	.58*	.20	.10	.16	.15	42.36	8.11	.70
PDA	.32*	.28*	.62*	.63*	--	.14	.17	.20	.33	52.87	12.19	.85
PCD	.09	.18	.21	.22	.29*	--	.21	.26	.13	7.01	2.74	.66
IS	.06	.12	.24	.22	.26**	.07	--	.84*	.43*	7.79	6.96	.84
AS	.04	.06	.18	.14	.28*	.05	.69*	--	.50*	17.04	12.01	.89
BDI	.14	.07	.44*	.34*	.51*	.23	.37*	.43*	--	10.76	9.05	.91
M for ♀	68.90	55.79	56.66	42.60	49.15	6.72	7.86	17.31	12.22	--		
SD for ♀	13.94	9.52	11.87	8.21	16.32	2.46	6.00	11.19	9.17		--	
α for ♀	.90	.73	.83	.66	.92	.66	.78	.85	.91			--

Note. Zero-order correlations for men are above the diagonal; zero-order correlations for women are below the diagonal. For men * $p < .001$. For women * $p < .001$ and ** $p < .003$. A "multistage Bonferroni correction" (Larzelere & Mulaik, 1977, p. 563) was applied to Table 2. Self = self-oriented perfectionism; Other = other-oriented perfectionism; Social = socially prescribed perfectionism; NFA = need for approval; PDA = perfectionistic dysfunctional attitudes; PCD = perceived coping difficulties; IS = interpersonal stressors; AS = achievement stressors; BDI = depression symptoms. M = means; SD = standard deviations; α = coefficients alpha; ♂ = men; ♀ = women.

Table 3

Regression Analyses Predicting Dysfunctional Attitudes with Perfectionism Dimensions in Adult Psychiatric Patients and Young Adult Men and Women

Variable	R^2	Beta	t
Adult Psychiatric Patients			
Predicting perfect. dysfun. attitu.	.73***		
Self-oriented perfectionism		.16	1.88
Other-oriented perfectionism		.09	1.26
Socially prescribed perfectionism		.73	9.50***
Predicting need for approval	.43***		
Self-oriented perfectionism		.24	2.00*
Other-oriented perfectionism		.04	0.42
Socially prescribed perfectionism		.47	4.22***
Young Adult Men			
Predicting perfect. dysfun. attitu.	.43***		
Self-oriented perfectionism		-.08	-0.85
Other-oriented perfectionism		.16	1.62
Socially prescribed perfectionism		.62	6.48***
Predicting need for approval	.12*		
Self-oriented perfectionism		.02	0.12
Other-oriented perfectionism		.00	-0.01
Socially prescribed perfectionism		.34	2.90**

See next page

Table 3 continued

Variable	R^2	Beta	t
Young Adult Women			
Predicting need for approval	.19***		
Self-oriented perfectionism		.12	1.28
Other-oriented perfectionism		-.13	-1.49
Socially prescribed perfectionism		.41	4.46***
Predicting perfect. dysfun. attitu.	.38***		
Self-oriented perfectionism		-.02	-0.26
Other-oriented perfectionism		.06	0.74
Socially prescribed perfectionism		.61	7.61***

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4

Hierarchical Regression Analyses Predicting Depression Symptoms with Dysfunctional Attitudes and Perfectionism Dimensions in Adult Psychiatric Patients and Young Adult Men and Women

Variable	R^2	Beta	R^2 Change	F Change
Adult Psychiatric Patients				
Predicting depression symptoms				
Step 1	.27		.27	12.16***
Need for approval		.16		
Perfect. dysfun. attitu.		.40*		
Step 2	.37		.10	3.14*
Self-oriented perfectionism		.11		
Other-oriented perfectionism		-.20		
Socially prescribed perfectionism		.42*		
Predicting depression symptoms				
Step 1	.35		.35	11.68***
Self-oriented perfectionism		.15		
Other-oriented perfectionism		-.19		
Socially prescribed perfectionism		.53***		
Step 2	.37		.01	0.70
Need for approval		.14		
Perfect. dysfun. attitu.		.06		

See next page

Table 4 continued

Variable	R^2	Beta	R^2 Change	F Change
Young Adult Men				
Predicting depression symptoms				
Step 1	.11		.11	4.21*
Need for approval		-.06		
Perfect. dysfun. attitu.		.36*		
Step 2	.13		.02	.52
Self-oriented perfectionism		-.03		
Other-oriented perfectionism		-.13		
Socially prescribed perfectionism		.09		
Predicting depression symptoms				
Step 1	.08		.08	1.85
Self-oriented perfectionism		-.06		
Other-oriented perfectionism		-.07		
Socially prescribed perfectionism		.28*		
Step 2	.13		.06	2.02
Need for approval		-.07		
Perfect. dysfun. attitu.		.35		

See next page

Table 4 continued

Variable	R^2	Beta	R^2 Change	F Change
Young Adult Women				
Predicting depression symptoms				
Step 1	.26		.26	23.85***
Need for approval		.02		
Perfect. dysfun. attitu.		.49***		
Step 2	.30		.04	2.78*
Self-oriented perfectionism		-.09		
Other-oriented perfectionism		-.10		
Socially prescribed perfectionism		.28**		
Predicting depression symptoms				
Step 1	.21		.21	11.85***
Self-oriented perfectionism		-.09		
Other-oriented perfectionism		-.08		
Socially prescribed perfectionism		.52***		
Step 2	.30		.09	9.07***
Need for approval		.00		
Perfect. dysfun. attitu.		.39***		

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Hierarchical Regression Analyses Testing Hewitt and Flett's Specific Vulnerability Hypothesis in Young Adult Women

Variable	R^2	Beta	R^2 Change	F Change
Predicting depression symptoms				
Step 1	.19		.19	32.59***
Socially prescribed perfectionism		.44***		
Step 2	.32		.13	25.72***
Achievement stressors		.36***		
Step 3	.34		.02	4.16*
Socially prescribed perfectionism interacting with achievement stressors		.91*		
Predicting depression symptoms				
Step 1	.19		.19	32.59***
Socially prescribed perfectionism		.44***		
Step 2	.26		.07	13.96***
Interpersonal stressors		.28***		
Step 3	.29		.03	5.74*
Socially prescribed perfectionism interacting with interpersonal stressors		1.06*		

See next page

Table 5 continued

Variable	R^2	Beta	R^2 Change	F Change
Predicting depression symptoms				
Step 1	.02		.02	2.58
Self-oriented perfectionism		.14		
Step 2	.07		.05	6.84**
Perceived coping difficulties		.22**		
Step 3	.11		.04	6.42*
Self-oriented perfectionism interacting with perceived coping difficulties		1.19*		

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6

Hierarchical Regression Analyses Testing Beck's Specific Cognitive Vulnerability Hypothesis in Young Adult Women

Variable	R^2	Beta	R^2 Change	F Change
Predicting depression symptoms				
Step 1	.26		.26	47.97***
Perfect. dysfun. attitu.		.51***		
Step 2	.35		.09	19.16***
Achievement stressors		.31***		
Step 3	.37		.02	5.08*
Perfect. dysfun. attitu. interacting with achievement stressors		.65*		

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 1. Socially Prescribed Perfectionism Interacting with Achievement Stressors to Predict Depression Symptoms in Young Adult Women

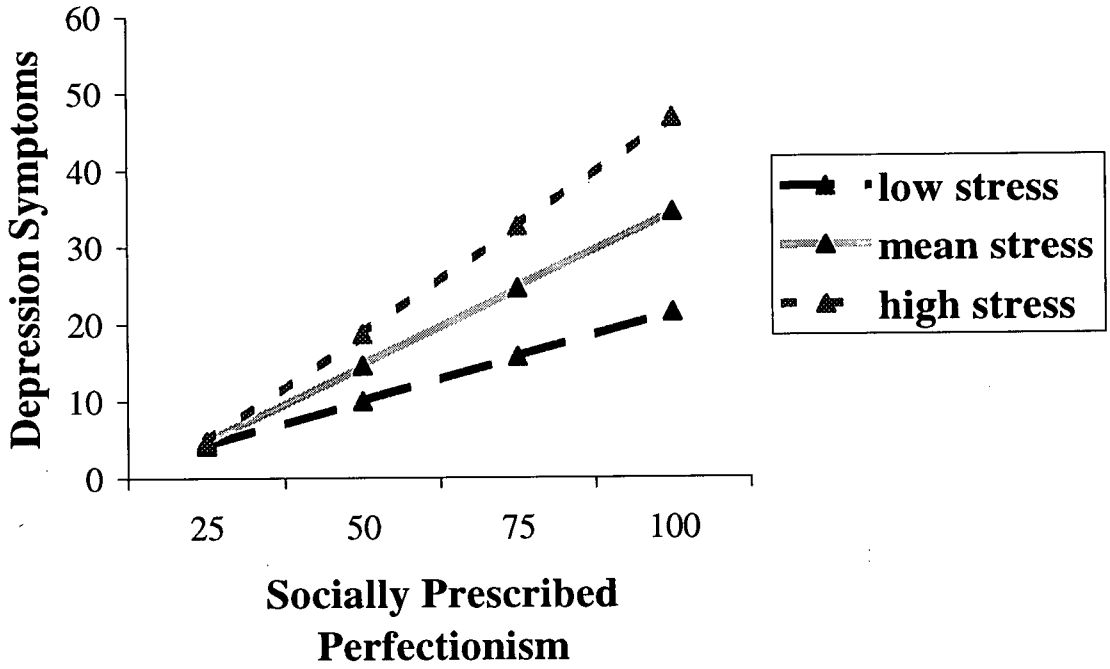


Figure 2. Socially Prescribed Perfectionism Interacting with Interpersonal Stressors to Predict Depression Symptoms in Young Adult Women

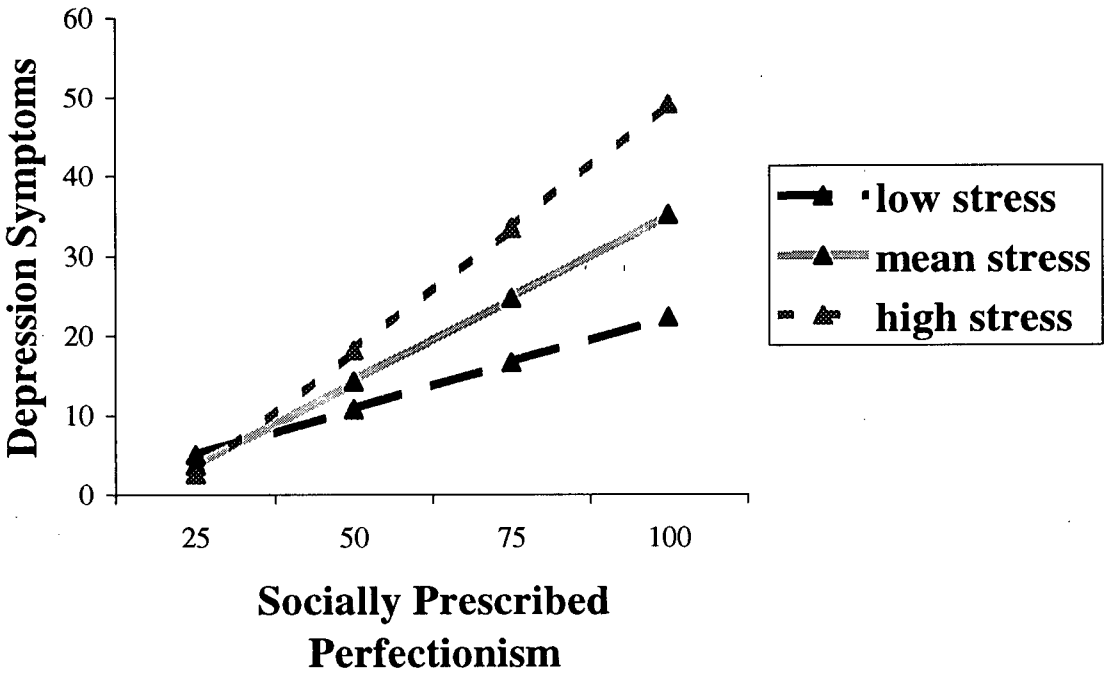


Figure 3. Self-Oriented Perfectionism Interacting with Perceived Coping Difficulties to Predict Depression Symptoms in Young Adult Women

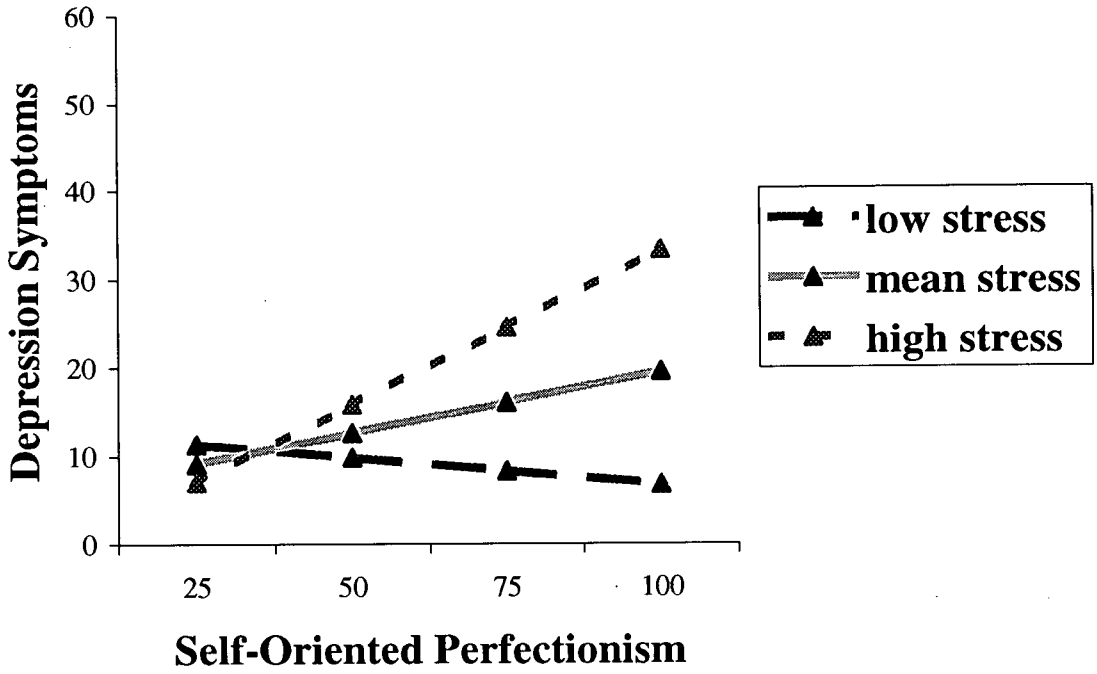
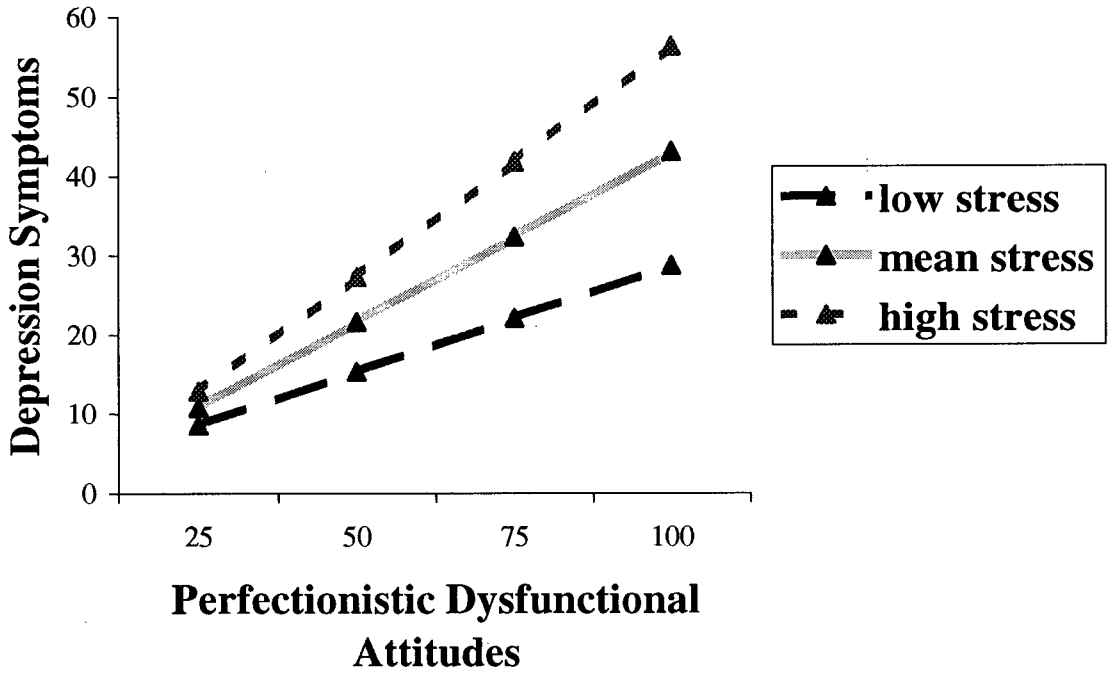


Figure 4. Perfectionistic Dysfunctional Attitudes Interacting with Achievement Stressors to Predict Depression Symptoms in Young Adult Women



Footnotes

[1]Perfectionism dimensions will be used to denote a construct composed of self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism; dysfunctional attitudes will be used to designate a construct comprised of perfectionistic dysfunctional attitudes and need for approval.

[2]Alternatively, Frost and colleagues have created the FMPS to measure six dimensions of perfectionism: concerns over mistakes, personal standards, parental criticism, doubts about actions, parental expectations, and organization (Frost et al., 1990). Recently, Norman, Davies, Nicholson, Cortese, and Malla (1998) and Enns and Cox (1999) have charted the association between perfectionism dimensions, measured by the FMPS, and depression symptoms, measured by the BDI, in samples of adult psychiatric in- and out-patients. Both studies demonstrated that concerns over mistakes and doubts about actions were positively and significantly correlated with depression symptoms. In fact, although outside our current focus, there is a growing body of research attesting to FMPS dimensions as important predictors of depression symptoms (Chang, 2000; Kawamura, Hunt, Frost, & DiBartolo, 2001; Rice et al., 1998; Rice & Dellwo, 2001; Rice & Mirzadeh, 2000).

[3]Using structural equation modeling, Blankstein and Dunkley (2002) have also found that various types of hassles (e.g., academic), perception of social support, and different ways of coping (e.g., emotion-oriented) combine with what they term self-critical perfectionism, evaluative concerns perfectionism, and personal standards perfectionism to predict depression symptoms in young adults.

[4]Additonally, researchers have shown that perceived stress (e.g., Chang, 2000; Chang & Rand, 2000) and negative events (e.g., Flett, Hewitt, Blankstein, et al., 1995) combine with

perfectionism dimensions measured by the MPS or the FMPS to predict depression symptoms in young adults.

[5]"The dysfunctional attitudes construct may be regarded as a personality variable to the extent that dysfunctional attitudes differ between individuals and it is believed that these maladaptive cognitions are stable and enduring" (Flett, Hewitt, Endler, & Bagby, 1995, p. 324).

[6]Although designated as Beck's specific cognitive vulnerability hypothesis, it is Barnett and Gotlib (1990), Brown, Hammen, et al. (1995), Dykman and Johll (1998), Lam et al. (1996), and Segal et al. (1992) who have theorized that different types of dysfunctional attitudes (e.g., PDA) interact with various classes of life events (e.g., achievement stressors) to predict depression symptoms. Despite giving environmental stimuli an important role in his model of dysfunctional attitudes (Beck et al., 1983), according to our knowledge, Beck has not proposed that interpersonal stressors interact with NFA, and achievement stressors interact with PDA, to predict depression symptoms.

[7]Similarily, Beck has suggested that two cognitive modes of functioning—sociotropy and autonomy—predispose individuals to depressive disorders (Beck, 1983). Clark and Beck (1991) have argued that sociotropy and autonomy operate not as "personality traits but [as] cognitive modes that can dominate...psychological functioning at one time or another" (p. 370). Sociotropic individuals seek approval, struggle to please others, require acceptance, crave interpersonal relationships, desire nurturance, seek guidance, want admiration, and acquire their self-worth primarily from relationships. Autonomous individuals prefer solitude, prize individual freedoms, seek control, want mobility, strive for accomplishments, value individualism, and derive their self-worth mainly from achievements (Beck et al., 1983; Robins, Block, & Peselow, 1989). When sociotropic individuals face interpersonal conflicts and autonomous individuals encounter achievement difficulties, Beck (1983) has argued that

sociotropy and autonomy predispose individuals to depressive disorders. Although evidence for sociotropy as a vulnerability factor is consistent, support for autonomy as a risk factor is inconsistent (Clark, Beck, & Brown, 1992; Hammen, Ellicott, Gitlin, & Jamison, 1989; Robins, 1990). Sociotropy and autonomy were not included in the present study because the relationship between dysfunctional attitudes, perfectionism dimensions, and sociotropy and autonomy has been examined (Barnett & Gotlib, 1988; Flett et al., 1997; Moore & Blackburn, 1994; Pincus & Gurtman, 1995; Rude & Burnham, 1993).

[8]Consistent with Flett, Hewitt, Endler, et al. (1995), "our position is that it is acceptable to utilize heterogeneous samples to test certain issues such as the unique contribution of a specific personality trait as a predictor of depressive symptomatology" (p. 335).

[9]Gender differences were not examined in Sample 1 because we lacked the minimum number of men and the minimum number of women needed to conduct separate analyses (Green 1990).

[10]That is, at the high level of achievement stressors, the regression of depression symptoms on socially prescribed perfectionism is significantly different from zero (Aiken & West, 1991).

[11]Because achievement stressors is a continuous variable, the significance of the socially prescribed perfectionism by achievement stressors product vector in the hierarchical regression analysis depicted in Table 5 indicates that the regression of depression symptoms on socially prescribed perfectionism differs across the range of achievement stressors (Aiken & West, 1991). Accordingly, "no further test is required of whether [the slopes of the regression of depression symptoms on socially prescribed perfectionism] differ from one another as a function of the value of [achievement stressors]" (Aiken & West, 1991, p. 21).

[12]Interpersonal was defined as "between persons."

[13]All of the 11 NFA items reflect interpersonal themes.

[14]Conversely, all of the 15 self-oriented perfectionism items represent intrapersonal themes, and all of the 15 socially prescribed perfectionism items capture interpersonal themes.

[15]Interactions were only detected for young women. On the one hand, such gender differences may be artifactual, reflecting, for example, gender item bias in the BDI (Santor, Ramsay, & Zuroff, 1994) or a relative lack of statistical power (70 young adult men vs. 141 young adult women). On the other hand, such gender differences may be substantive, representing, for instance, the tendency for "a match between a cognitive diathesis (i.e., dysfunctional attitudes) and a preonset negative life event...to occur significantly more frequently among depressed women than depressed men" (Spangler, Simons, Monroe, & Thase, 1996, p. 655).

[16]Recently, Zuroff et al. (1999) have argued that dysfunctional attitudes are correctly viewed as traits (that remain relatively stable over time) and as states (that abate along with depression symptoms) within a state-trait vulnerability model.